Hampshire Services
HIAS SCHOOL IMPROVEMENT

HIAS MOODLE+ RESOURCE

# HIAS Scheme of Learning for Mathematics

## Medium Term Plans for Year Four

HIAS Maths Team
June 2023
Final version



Hampshire County Council

www.hants.gov.uk

# Overview

**This document contains…**
Long-term curriculum map for Y4
Medium-term overview plans for Y4 designed to support single age classes

**Points to consider when using this resource**
This medium-term plan identifies the key objectives in each unit.
For more detail and a break-down of these objectives please refer to the relevant unit plan.
Unit plans identify a learning journey, required prior knowledge, misconceptions, key vocabulary, and suggested tasks.
Appropriate models, images, concrete resources, and visual representations are an implicit element in all units.

A suggested schedule for assessment is included as colour-coded bands, linked to the Hampshire Assessment Model if required.

Plans are based on a **39-week school year** and will need to be **adjusted** on a term-by-term basis

## Long term curriculum map for Year 4

**Year 4 – Yearly Overview**

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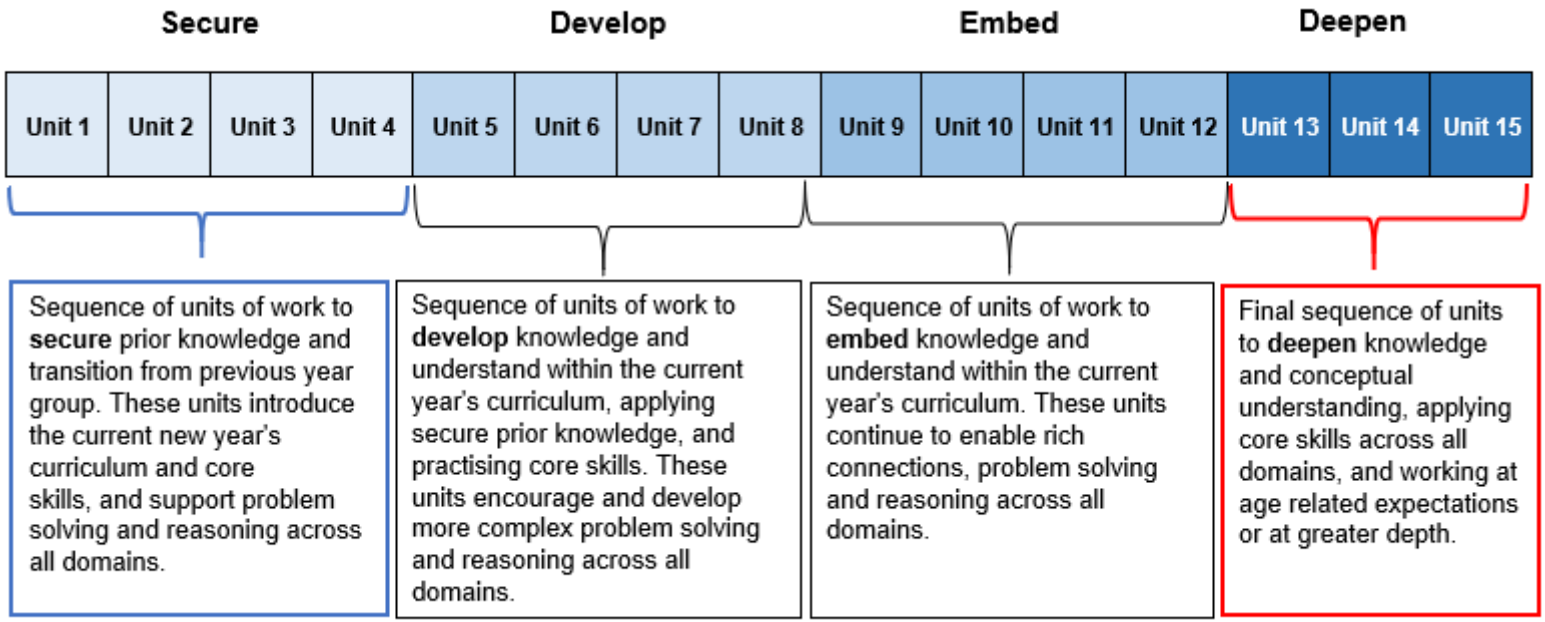
| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | 4.1 Number and Place Value Addition and Subtraction | | | 4.2 Measurement with Addition and Subtraction | | 4.3 Multiplication and Division | | 4.4 Fractions | | | 4.5 Geometry | 4.5 Measurement | | 4.5 Time |
| | Measurement: Time : Utilise everyday opportunities to tell the time from an analogue clock and a 24-hour clock. Estimate and read time with increasing accuracy to the nearest minute. Convert from hours to minutes, minutes to seconds, years to months, weeks to days. | | | | | | | | | | | | | |
| **Spring** | 4.6 Factions | | 4.6 Geometry | 4.7 Number and Place Value Addition and Subtraction | | | 4.8 Measurement: Time | 4.9 Multiplication and Division | | 4.9 Fractions | 4.10 Place Value Addition and Subtraction with Statistics | | | |
| | Measurement: Time: Utilise everyday opportunities to tell the time, including on a clock face with Roman numerals. Convert to 12-hour and 24-hour time. Read Roman numerals to 100 (C). Practise counting in multiples of 25 and 1000 from zero | | | | | | | | | | | | | |
| **Summer** | 4.11 Multiplication and Division | | | 4.12 Geometry | | 4.13 Addition and Subtraction and Statistics | | 4.14 Multiplication and Division | | 4.14 Fractions | 4.15 Measurement: Money and Time | | 4.16 Measurement: length | |

## Overview of curriculum intent




## Key for assessment bands

| AM1 | AM2 | AM3 | ARE |
|---|---|---|---|
| Assessment Milestone 1 | Assessment Milestone 2 | Assessment Milestone 3 | Assessment ARE |

## YEAR 4 Autumn Term

Measurement: Find everyday opportunities to tell the time from an analogue clock and a 24-hour clock. Estimate and read time with increasing accuracy to the nearest minute. Convert from hours to minutes, minutes to seconds, years to months and weeks to days Subsequent units should continue to revisit material from previous units to deepen learning, encourage automaticity and allow rich connections to be made across the year.

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.1 | 10 | Number: Place Value, | • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).<br>• Identify, represent, and estimate numbers using different representations.<br>• Order and compare number beyond 1000.<br>• Y3: Find 10 or 100 more or less than any given number.<br>• Find 1000 more or less than any given number<br>• Count backwards through zero to include negative numbers.<br>• Round any number to the nearest 10,100,1000.<br>• Solve number and practical problems that involve all of the above and with increasingly large positive numbers. | • I can recognise and represent the place value of digits in a four-digit number.<br>• I can estimate the position of numbers on a number line.<br>• I can position and compare numbers on a number line.<br>• I can find 10, 100 or 1000 more than any given number.<br>• I can count backwards through zero.<br>• I can round any number up to 10,000 to the nearest 10, 100 or 1000. |
| | | 5 | Addition and Subtraction | • Y2: Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.<br>• Y3: Read and write numbers to at least 1000 in numerals and in words.<br>• Y3: Add and subtract numbers mentally including:<br>  ○ a three-digit number and ones<br>  ○ a three-digit number and tens<br>  ○ a three-digit number and hundreds.<br>• Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.<br>• Estimate and use inverse operations to check answers to a calculation. | • I can use related facts.<br>• I can use a range of mental strategies when adding and subtracting numbers.<br>• I can solve two-step addition and subtraction problems. |

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.2 | 5 | Addition and subtraction with measurement | • Estimate, compare and calculate different measures, including money in pounds and pence.<br>• Y3: add and subtract amounts of money to give change, using both £ and p in practical contexts. | • I can recall key facts in the context of money.<br>• I can find totals using different combinations of coins.<br>• I can add amounts of money.<br>• I can subtract to find change. |
| | | 5 | | • Y3: Measure, compare, add and subtract lengths (m/cm/mm).<br>• Convert between different units of measure e.g. kilometre to metre.<br>• Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m | • I can recall and represent key facts in the context of length.<br>• I can convert between different units of measure.<br>• I can measure and calculate perimeter.<br>• I can solve problems relating to perimeter. |
| | 4.3 | 10 | Multiplication and Division | • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers<br>• Recognise and use factor pairs and commutativity in mental calculations.<br>• Recall and use multiplication and division facts for multiplication tables up to 12 x 12.<br>• Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one-digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. | • I can recall and use multiplication and division facts.<br>• I can recall and use multiplication and division facts for the 6 and 7 multiplication tables.<br>• I can solve problems involving the 6 and 7 multiplication tables.<br>• I can use division facts for the 6 and 7 multiplication tables.<br>• I can solve problems with remainders involving the 6 and 7 multiplication tables. |

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.4 | 15 | Fractions | • Recognise and show, using diagrams, families of common equivalent fractions.<br>• Y3: Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing one-digit numbers or quantities by 10.<br>• Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.<br>• Recognise and write decimal equivalents of any number of tenths or hundredths.<br>• Find the effect of dividing a one-or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.<br>• Round decimals with one decimal place to the nearest whole number.<br>• Add and subtract fractions with the same denominator. | • I can count in fractional steps.<br>• I can solve problems by counting in fractional steps.<br>• I can recognise families of common equivalent fractions.<br>• I can compare fractions and identify equivalence.<br>• I can count up and down in tenths.<br>• I can count up and down in hundredths.<br>• I can round decimals to the nearest whole number.<br>• I can add and subtract fractions with the same denominator. |
| | | 5 | Geometry | • Compare and classify geometric shapes, including quadrilaterals and triangles based on their properties and sizes.<br>• Identify acute and obtuse angles and compare and order angles up to two right angles by size.<br>• Complete a simple symmetric figure with respect to a specific line of symmetry.<br>• Find the area of rectilinear shapes by counting squares.<br>• Describe positions on a 2-D grid as co-ordinates in the first quadrant. | • I can compare and sort 2D shapes based on their properties.<br>• I can identify acute and obtuse angles.<br>• I can identify the line of symmetry.<br>• I can find the area of shapes by counting squares,<br>• I can describe positions on a 2-D grid as coordinates, |

| A.M | | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|---|
| | | 4.5 | 10 | Place Value with Measurement | • Y3: Measure, compare, add and subtract lengths (mm/cm/m/km); mass (kg/g).<br>• Convert between different units of measure (e.g. kilometres to metres, hours to minutes).<br>• Count up and down in hundredths; recognising that hundredths arise from dividing an object by hundred and dividing tenths by ten.<br>• Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones). | • I can identify key facts for length.<br>• I can count in fractional steps.<br>• I can accurately read scales to solve problems involving length.<br>• I can solve problems involving adding and subtracting length.<br>• I can identify key facts for mass.<br>• I can accurately read scales to solve problems involving mass.<br>• I can solve problems involving adding and subtracting mass. |
| | | | 5 | Time | • Y3: Estimate and read time within increased accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock. Use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight.<br>• Read, write and convert time between analogue and digital 12- and 24-hour clocks.<br>• Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. | • I can identify key facts for time.<br>• I can tell the time to the nearest minute.<br>• I can, write and convert time between analogue and digital clocks. |
| **Christmas Holidays** | | | | | | |

## Year 4 Spring Term

**Measurement:** Find everyday opportunities to tell the time, including on a clock face with Roman numerals. Convert to 12-hour and 24-hour time. Read Roma numerals to 100 (C). Practise counting in multiples of 25 and 1000 from zero.

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.6 | 10 | Fractions | • Recognise and show using diagrams, families of common equivalent fractions.<br>• Solve problems involving increasingly harder fractions to calculate quantities and fractions to divide quantities, including non-unit fractions where the answer is a whole number.<br>• Find the effect of dividing a one -or two- digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.<br>• Count up and down in hundredths; recognise that hundredths arise when dividing and object by a hundred and dividing tenths by ten.<br>• Round decimals with one decimal place to the nearest whole number.<br>• Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$. | • I can count in tenths.<br>• I can add and subtract tenths.<br>• I can round decimals to the nearest whole number.<br>• I can count up in hundredths.<br>• I can add and subtract hundredths.<br>• I can count up in fractional steps.<br>• I can add and subtract fractions with the same denominator.<br>• I can recognise decimal and fraction equivalence. |
| | | 5 | Geometry | • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.<br>• Identify acute and obtuse angles and compare and order up to two right angles by size.<br>• Identify lines of symmetry in 2- D shapes presented in different orientations.<br>• Describe positions on a 2-D grid as co-ordinates in the first quadrant.<br>• Describe movements between positions as translations of a given unit to the left / right and up/down. | • I can compare and classify quadrilaterals.<br>• I can describe positions of triangles on a grid.<br>• I can describe movements between positions as translations.<br>• I can compare angles in different 2-D shapes. |

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.7 | 15 | Number and Place Value<br><br>Addition and Subtraction | • Recognise the place value of each digit of a four-digit number (thousand, hundreds, tens and ones).<br>• Order and compare numbers beyond 1000.<br>• Round any number to the nearest 10, 100 or 1000.<br>• Estimate and use inverse operations to check answers to a calculation.<br>• Add and subtract numbers with up to 4 digits using formal written methods and subtraction where appropriate.<br>• Solve addition and subtraction two-step problems in context, deciding which operations and methods to use and why. | • I can compare and order four-digit numbers.<br>• I can round to the nearest multiple of 10.<br>• I can round to the nearest multiple of 100.<br>• I can round to the nearest multiple of 1000.<br>• I can use known facts to support mental strategies.<br>• I can add numbers using formally written methods.<br>• I can subtract numbers using formally written methods.<br>• I can identify when to use mental strategies or a formal written method.<br>• I can solve addition and subtraction two-step problems in context. |
| | 4.8 | 5 | Measurement: Time | • Y3: Tell and write the time from an analogue clock, including using roman numerals from I to XII, and 12-hour and 24-hour clocks.<br>• Y3: Compare durations of events, for example to calculate the time taken by particular events or tasks.<br>• Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days. | • I can read and write the time from an analogue clock.<br>• I can calculate durations of time. |

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.9 | 10 | Multiplication and Division | • Y3: Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables.<br>• Count in multiples of 6,7, 9, 25 and 1000 from zero.<br>• Recall multiplication and division facts for multiplication tables up to 12 x 12.<br>• Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1, dividing by 1, multiplying together three numbers.<br>• Recognise and use factor pairs and commutativity in mental calculations.<br>• Solve problems involving multiplication and adding including using the distributive law to multiply two-digit numbers by one-digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. | • I can recall and use multiplication and division facts.<br>• I can multiply three numbers together.<br>• I can use the grid method for multiplication.<br>• I can divide by 1.<br>• I can solve problems involving multiplication.<br>• I can use place value, known and derived facts to multiply and divide mentally.<br>• I can solve multiplication problems using known facts. |
| | | 5 | Fractions | • Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.<br>• Find the effect of dividing a one-or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.<br>• Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten. | • I can find the effect of dividing by 10.<br>• I can solve problems involving fractions to calculate quantities. |

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.10 | 10 | Number and Place Value<br><br>Addition and Subtraction with Statistics | • Order and compare numbers beyond 1000.<br>• Identify, represent and estimate numbers using different representations<br>• Round any number to the nearest 10,100 and 1000.<br>• Solve number and practical problems that involve an understanding of place value and with increasingly large positive numbers.<br>• Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate.<br>• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.<br>• Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. | • I can compare and order numbers.<br>• I can position and compare numbers on a number line.<br>• I can recall related facts to 1000.<br>• I can recall related facts to 10,000.<br>• I can solve missing number problems using known facts,<br>• I can solve comparison, sum and difference problems. |
| **Easter Holidays** | | | | | |

## Year 4 Summer Term

Find everyday opportunities to count fluently in multiples of 2,4,8 ; 3,6,9,12 ; 5,10. Use knowledge of commutativity to increase fluency. Notice and describe number patterns.

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.11 | 15 | Multiplication and Division | • Y3: Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing one-digit numbers or quantities by 10.<br>• Use place value, known and derived facts to multiply and divide mentally including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.<br>• Find the effect of dividing a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths.<br>• Recall multiplication and division facts for multiplication tables up to 12 x 12.<br>• Solve problems involving multiplying and adding, including using distributive law to multiply two-digit numbers by one-digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. | • I can recall and use multiplication and division facts.<br>• I can recall and use multiplication and division facts for the 11-multiplication table.<br>• I can recall and use multiplication and division facts for the 12-multiplication table.<br>• I can find the effect of dividing a one-digit number by 10.<br>• I can find the effect of multiplying and dividing by 10.<br>• I can find the effect of multiplying and dividing by 100.<br>• I can solve problems involving multiplication and division.<br>• I can solve problems involving division with remainders. |
| | 4.12 | 10 | Geometry | • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.<br>• Identify acute and obtuse angles and compare and order angles up to two right angles by size.<br>• Find the area of rectilinear shapes by counting squares.<br>• Plot specified points and draw sides to complete a given polygon. | • I can find the area of rectilinear shapes.<br>• I can compare and order angles.<br>• I can compare and classify quadrilaterals and triangles.<br>• I can compare and classify geometric shapes.<br>• I can find the area of rectilinear shapes.<br>• I can plot specified points and draw sides to complete a given polygon. |

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.13 | 10 | Addition and Subtract with Statstics | • Add and subtract with numbers up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.<br>• Estimate and use inverse operations to check answers to a calculation.<br>• Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.<br>• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.<br>• Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.<br>• Count backwards through zero to include negative numbers. | • I can decide which operations and methods to use and why.<br>• I can solve missing number problems.<br>• I can solve addition and subtraction two-step problems.<br>• I can count backwards through zero to include negative numbers,<br>• I can solve comparison, sum and difference problems. |
| | 4.14 | 10 | Multiplication and Division | • Recall multiplication and division facts for multiplication tables up to 12 x 12.<br>• Recognise and use factor pairs and commutativity in mental calculations.<br>• Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.<br>• Solve problems involving multiplying and adding, including using distributive law to multiply two-digit numbers by one-digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. | • I can recall and use multiplication and division facts.<br>• I can multiply two-digit numbers by a one-digit number using formal written layout.<br>• I can multiply three-digit numbers by a one-digit number using formal written layout.<br>• I can use the formal written method of short division.<br>• I can solve problems involving multiplication and division. |
| | | 5 | Fractions | • Find the effect of dividing a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths.<br>• Recognise and show using diagrams, families of common equivalent fractions.<br>• Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.<br>• Recognise and write decimal equivalents of any number of tenths or hundredths.<br>• Recognise and write decimal equivalents to $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$ | • I can recognise and show equivalent fractions.<br>• I can recognise and write fraction and decimal equivalents.<br>• I can solve problem involving harder fractions to calculate quantities. |

| A.M | Unit | Hours | Domain | Y4 National Curriculum Objectives | Learning journey - 'I can…' statements |
|---|---|---|---|---|---|
| | 4.15 | 5 | Measurement: Money | • Estimate, compare and calculate different measures, including money in pounds and pence.<br>• solve simple measure and money problems involving fractions and decimals to two decimal places. | • I can recall key facts.<br>• I can calculate with money. |
| | | 5 | Measurement: Time | • Read, write and convert time between analogue and digital 12 and 24- hour clocks.<br>• Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days | • I can read and write time between analogue and digital 12-hour clocks. .<br>• I can read, write and convert time between analogue and digital 24-hour clocks.<br>• I can solve problems involving calculating time intervals. |
| | 4.16 | 5 | Measurement: length | • Convert between different units of measure (e.g. kilometres to metres).<br>• Estimate, compare and calculate with different measures.<br>• Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.<br>• Solve simple measure problems involving fractions and decimals up to two decimal places.<br>• Round decimals with one decimal place to the nearest whole number.<br>• Compare numbers with the same number of decimal place (up to two decimal places) | • I can solve simple measure problems involving fractions and decimals.<br>• I can measure and calculate the perimeter of geometric shapes.<br>• I can measure and calculate the perimeter of rectilinear shapes. |
| **Summer Holidays** | | | | | |

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