# Mathematics Medium Term Plan (Linked to NCETM Curriculum Prioritisation Plans)

**Autumn Term- Year 3**

| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 |
|---|---|---|---|---|---|---|---|
| *(3 days)*<br><br>Revisit place value of 2 -digit numbers using bar model/ part-whole representations | **Unit 1** (2 weeks)<br>**Adding and Subtracting across 10**<br>Add 3 addends<br>Use a 'First.. Then… Now" story to add 3 addends<br>Explain that addends can be added in any order<br>Add 3 addends efficiently<br>Add 3 addends efficiently by finding two addends that total 10<br>Add two numbers that bridge through 10<br>Subtract two numbers that bridge through 10 | | **Unit 2** (10 weeks)<br>**Numbers to 1,000**<br>Explain that 100 is composed of ten tens and one hundred ones<br>Explain that 100 is composed of 50s 25s and 20s<br>Use known facts to find multiples of ten that compose 100<br>Use known facts to find a two-digit number and a one- or two-digit number that compose 100<br>Use known facts to find correct complements to 100<br>Use known facts to find complements to 100 accurately and efficiently<br>Represent a three-digit number which is a multiple of ten using their numerals and names<br>Use place value knowledge to write addition and subtraction equations<br>Bridge 100 by adding or subtracting in multiples of ten<br>Use knowledge of addition and subtraction of multiples of ten bridging the hundreds boundary to solve problems<br>Count across and on from 100<br>Represent a three-digit number up to 199 in different ways<br>Bridge 100 by adding or subtracting a single-digit number<br>Pupils find ten more or ten less than a given number<br>Pupils cross the hundreds boundary when adding and subtracting any two-digit multiple of ten | | | **Unit 2 (ctd): Length**<br>Become familiar with a metre ruler (marked and unmarked intervals, 1 x 1m, 10 x 10cm, 100 x 1cm)<br>Measure length and height from zero using whole metres and cm<br>Measure length and height from 0 using cm<br>Convert between m and cm (include whole m to cm, cm to whole m and cm and vice versa)<br>Become familiar with a ruler in relation to cm and mm (marked and unmarked intervals, knowing 1cm = 10mm)<br>Measure length from zero using mm / whole cm and mm<br>Convert between cm and mm (include whole cm to mm, mm to whole cm and mm and vice versa) |

| Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 |
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| **Unit 2 (ctd)**<br>Use knowledge of place value to represent a three-digit number in different ways<br>Represent a three-digit number up to 1000 in different ways<br>Use knowledge of the additive relationship to solve problems<br>Count in hundreds and tens on a number line<br>Identify the previous, next and nearest multiple of 100 on a number line for a 3-digit multiple of ten<br>Position three-digit numbers on number lines<br>Estimate the position of three-digit numbers on unmarked number lines<br>Compare one-, two- and three-digit numbers<br>Compare two three-digit numbers<br>Order sets of three-digit numbers<br>Use known facts to add or subtract multiples of 100 within 1000<br>Write a three-digit multiple of 10 as a multiplication equation<br>Partition three-digit numbers in different ways<br>Use known facts to solve problems involving partitioning numbers<br>Use known facts to add or subtract to/from multiples of 100 in tens<br>Use known facts to add or subtract to/from multiples of 100 in ones<br>Add/subtract multiples of ten bridging 100<br>Add/subtract to/from a three-digit number in ones bridging 100<br>Find 10 more or less across any hundreds boundary<br>Use knowledge of adding or subtracting to/from three-digit numbers to solve problems<br>Count forwards and backwards in multiples of 2, 20, 5, 50 and 25<br>Use knowledge of counting in multiples of 2, 20, 5, 50 and 25 to solve problems | | | | | **Termly Assessments - NFER** | **Unit 2 (ctd): Mass and Volume**<br>Become familiar with different weighing scales up to 1kg (intervals of 100g, 200g, 250g and 500g)<br>Become familiar with the tools to measure volume and capacity up to 1 litre (intervals of 100ml, 200ml, 250ml and 500ml)<br>Measure mass from zero up to 1kg using grams<br>Measure mass from zero above 1kg using whole kg and grams<br>Measure volume from zero up to 1 litre using ml<br>Measure volume from zero above 1 litre using whole litres and ml<br>Estimate mass in grams and volume in ml<br>Estimate a mass/volume, measure a mass/volume and record in a table |

# Mathematics Medium Term Plan (Linked to NCETM Curriculum Prioritisation Plans)

**Spring Term- Year 3**

| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 |
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| **Unit 3** (2 weeks)<br>**Right Angles**<br>Rotate two lines around a fixed point to make different sized angles<br>Draw triangles and quadrilaterals and identify vertices<br>Learn that a right angle is a 'square corner' and identify them in the environment<br>Learn that a rectangle is a 4-sided polygon with four right angles<br>Learn that a square is a rectangle in which the four sides are equal length<br>Cut rectangles and squares on the diagonal and investigate the shapes they make<br>Join four right angles at a point using different right-angled polygons<br>Investigate and draw other polygons with right angles | | **Unit 4** (4 weeks)<br>**Manipulating the additive relationship and securing mental calculation**<br>Add 3 addends<br>Add two 3-digit numbers using adjusting<br>Add a pair of 2- or 3-digit numbers using redistribution<br>Subtract a pair of 2- or 3-digit numbers, bridging a multiple of 10, using partitioning<br>Subtract a pair of 2-digit numbers, crossing a ten or hundreds boundary, by finding the difference between them<br>Subtract a pair of three-digit multiples of 10 within 1000 by finding the difference between them<br>Evaluate the efficiency of strategies for subtracting from a 3-digit number<br>Explain why the order of addition and subtraction steps in a multi-step problem can be chosen<br>Accurately and efficiently solve multi-step addition and subtraction problems<br>Understand and can explain that both addition and subtraction equations can be used to describe the same additive relationship (2-digit numbers)<br>Understand and can explain that both addition and subtraction equations can be used to describe the same additive relationship (3-digit numbers)<br>Use knowledge of the additive relationship to rearrange equations<br>Use knowledge of the additive relationship to identify what is known and what is unknown in an equation<br>Use knowledge of the additive relationship to rearrange equations before solving | | | **Unit 5** (2 weeks)<br>**Column Addition**<br>Identify the addends and the sum in column addition<br>Use their knowledge of place value to correctly lay out column addition<br>Add a pair of 2-digit numbers using column addition<br>Add using column addition<br>Use their knowledge of column addition to solve problems<br>Add a pair of 2-digit numbers using column addition with regrouping in the ones column<br>Add a pair of 2-digit numbers using column addition with regrouping in the tens column<br>Add using column addition with regrouping<br>Use known facts and strategies to accurately and efficiently calculate and check column addition<br>Use their knowledge of column addition to solve problems | |

| Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | | | |
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| **Unit 6** (3 weeks)<br>**2,4,8 Times Tables**<br>Represent counting in fours as the 4 times table<br>Use knowledge of the 4 times table to solve problems<br>Explain the relationship between adjacent multiples of four<br>Explain the relationship between multiples of 2 and multiples of 4<br>Use knowledge of the relationships between the 2 and 4 times tables to solve problems<br>Represent counting in eights as the 8 times table<br>Explain the relationship between adjacent multiples of eight<br>Explain the relationship between multiples of 4 and multiples of 8<br>Use knowledge of the relationships between the 4 and 8 times tables to solve problems<br>Explain the relationship between multiples of 2, 4 and multiples of 8<br>Use knowledge of the relationships between the 2, 4 and 8 times tables to solve problems<br>Use knowledge of the divisibility rules for divisors of 2 and 4 to solve problems<br>Use knowledge of the divisibility rules for divisors of 8 to solve problems<br>Scale known multiplication facts by 10<br>Scale division derived from multiplication facts by 10 | | | **Termly Assessments - NFER** | **Unit 7** (1 week)<br>**Column Subtraction**<br>Identify the minuend and the subtrahend in column subtraction<br>Explain the column subtraction algorithm<br>Subtract from a 2-digit number using column subtraction with exchanging from tens to ones<br>Subtract from a 3-digit number using column subtraction with exchanging from hundreds to tens (1)<br>Subtract from a 3-digit number using column subtraction with exchanging from hundreds to tens (2)<br>Evaluate the efficiency of strategies for subtraction | | |

# Mathematics Medium Term Plan (Linked to NCETM Curriculum Prioritisation Plans)

**Summer Term- Year 3**

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<tr><th>Week 1</th><th>Week 2</th><th>Week 3</th><th>Week 4</th><th>Week 5</th><th>Week 6</th><th>Week 7</th><th></th></tr>
<tr><td colspan="5"><u>Unit 8</u> (5 weeks)<br><u>Unit Fractions</u><br>Identify a whole and the parts that make it up<br>Explain why a part can only be defined when in relation to a whole<br>Identify the number of equal or unequal parts in a whole<br>Identify equal parts when they do not look the same (i)<br>Explain the size of the part in relation to the whole<br>Construct a whole when given a part and the number of parts<br>Identify how many equal parts a whole has been divided into<br>Use fraction notation to describe an equal part of the whole<br>Represent a unit fractions in different ways<br>Identify parts and wholes in different contexts (i)<br>Identify parts and wholes in different contexts (ii)<br>Identify equal parts when they do not look the same (ii)<br>Compare and order unit fractions by looking at the denominator<br>Identify when unit fractions cannot be compared<br>Construct a whole when given one part and the fraction that it represents<br>Use knowledge of the relationship between parts and wholes in unit fractions to solve problems<br>Identify the whole, the number of equal parts and the size of each part as a unit fraction<br>Quantify the number of items in each part and connect to the unit fraction operator<br>Calculate the value of a part by using knowledge of division and division facts<br>Calculate the value of a part by connecting knowledge of division and division facts with finding a fraction of a quantity<br>Find fractions of quantities using knowledge of division facts with increasing fluency</td><td><u>Unit 9</u> (4 weeks)<br><u>Non-Unit Fractions</u><br>Explain that non-unit fractions are composed of more than one unit fraction<br>Identify non-unit fractions<br>Identify the number of equal or unequal parts in a whole<br>Use knowledge of non-unit fractions to solve problems<br>Use knowledge of unit fractions to find one whole<br>Place fractions between 0 and 1 on a numberline</td><td rowspan="2">Termly Assessments - NFER</td><td rowspan="2"></td></tr>
<tr><th>Week 8</th><th>Week 9</th><th>Week 10</th><th>Week 11</th><th>Week 12</th><th>Week 13</th><th></th><th></th></tr>
<tr><td colspan="3"><u>Unit 9</u><br><u>Non-Unit fractions(ctd)</u><br>Use repeated addition of a unit fraction to form a non-unit fraction<br>Use repeated addition of a unit fraction to form 1<br>Compare using knowledge of non-unit fractions equivalent to one<br>Compare non-unit fractions with the same denominator<br>Compare unit fractions<br>Compare fractions with the same numerator<br>Add up fractions with the same denominator<br>Add on fractions with the same denominator<br>Add fractions with the same denominator using a generalised rule<br>Subtract fractions with the same denominator<br>Identify the whole, the number of equal parts and the size of each part as a unit fraction<br>Explain that addition and subtraction of fractions are inverse operations<br>Subtract fractions from a whole by converting the whole to a fraction<br>Represent a whole as a fraction in different ways and use this to solve problems involving subtraction</td><td colspan="2"><u>Unit 10</u> (2 weeks)<br><u>Parallel and Perpendicular sides in polygons</u><br>Make compound shapes by joining two polygons in different ways (same parts, different whole)<br>Investigate different ways of composing and decomposing a polygon (same whole, different parts)<br>Draw polygons on isometric paper<br>Use geostrips to investigate quadrilaterals with and without parallel and perpendicular sides<br>Make and draw compound shapes with and without parallel and perpendicular sides<br>Learn to extend lines and sides to identify parallel and perpendicular lines<br>Make and draw triangles on circular geoboards<br>Make and draw quadrilaterals on circular geoboards<br>Draw shapes with given properties on a range of geometric grids</td><td><u>Unit 11</u> (1 week)<br><u>Time</u><br><br>Follow link for NCETM guidance:<br><br><u>https://www.ncetm.org.uk/classroom-resources/cp-year-3-unit-11-time/</u></td><td></td><td></td></tr>
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# Year 3 Yearly Overview (Linked to NCETM Curriculum Prioritisation Materials)

| | 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 | Week 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | Y2 Recap 2-digit numbers | **NCETM Unit 1** Adding and subtracting across 10 | | **NCETM Unit 2** Numbers to 1,000 | | | | **Measures: Length and Height** | **NCETM Unit 2 (ctd)** Numbers to 1,000 | | | | | **Assessment** | **Measures: Mass and Volume** |
| **Spring** | **NCETM Unit 3** Right Angles | | | **NCETM Unit 4** Manipulating the additive relationship and securing mental calculation | | | **NCETM Unit 5** Column Addition | | **NCETM Unit 6** 2,4,8 Times Tables | | | **Assessment** | **NCETM Unit 7** Column subtraction | | |
| **Summer** | **NCETM Unit 8** Unit Fractions | | | | | **NCETM Unit 9** Non-unit fractions | **Assessment** | **NCETM Unit 9 (ctd)** Non-Unit Fractions | | | **NCETM Unit 10** Parallel and Perpendicular sides in polygons | | **NCETM Unit 11** Time | | |

**Note: 'Constructing and presenting data' is not covered by the prioritisation materials and ideally can be addressed in the foundation subjects in a relevant context such as science or geography.**