# KS2 Maths Medium Term Plan 2021-22 – Cycle B

| Autumn 1 | Autumn 2 |
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| **Lower Key Stage 2** | |

**Autumn 1**

### Year 3
### Place Value - 4 weeks

- Recap Represent numbers to 100
- Recap Tens and ones using addition
- Hundreds
- Numbers to 1,000
- Activity Numbers to 1,000 on a place value grid
- 100s, 10s and 1s
- Recap Number line to 100
- Number line to 1,000
- Find 1, 10, 100 more or less
- Compare objects
- Compare numbers
- Order numbers
- Count in 50s

### Year 3
### Addition and Subtraction – 2 weeks (cont. in Aut 2)

- Add and subtract multiples of 100
- Add and subtract 3-digit and 1-digit numbers - not crossing 10
- Add 3-digit and 1-digit numbers - crossing 10
- Subtract a 1-digit number from a 3-digit number - crossing 10
- Add and subtract 3-digit and 2-digit numbers - not crossing 100
- Add 3-digit and 2-digit numbers - crossing 100
- Subtract a 2-digit number from a 3-digit number - crossing 100
- Add and subtract 100s
- Spot the pattern - making it explicit
- Add and subtract 2-digit and 3-digit numbers - not crossing 10 or 100

**Autumn 2**

### Year 3
### Addition and Subtraction – 3 weeks

- Add two 3-digit numbers - not crossing 10 or 100
- Add two 3-digit numbers - crossing 10 or 100
- Subtract a 3-digit number from a 3-digit number - no exchange
- Subtract a 3-digit number from a 3-digit number - exchange
- Estimate answers to calculations
- Check answers

### Year 3
### Measurement: Length and Perimeter – 2 weeks
### Measure length

- Recap Measure length (m)
- Equivalent lengths - m & cm
- Equivalent lengths - mm & cm
- Recap Compare lengths
- Compare lengths
- Add lengths
- Subtract lengths
- Measure perimeter
- Calculate perimeter

### Year 3
### Multiplication and Division – 2 weeks (cont. in Spring)

- Multiplication - equal groups
- Recap Multiplication using the symbol
- Recap Using arrays

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| • Add 2-digit and 3-digit numbers - crossing 10 or 100<br>• Subtract a 2-digit number from a 3-digit numbers - crossing 10 or 100 | • Recap 2 times-table<br>• Recap 5 times-table<br>• Recap Make equal groups - sharing<br>• Recap Make equal groups - grouping<br>• Recap Divide by 2<br>• Recap Divide by 5<br>• Recap Divide by 10<br>• Multiply by 3<br>• Divide by 3<br>• The 3 times-table<br>• Multiply by 4<br>• Divide by 4<br>• The 4 times-table<br>• Multiply by 8<br>• Divide by 8<br>• The 8 times-table |
| **Year 4**<br>**Place Value - 4 weeks**<br><br>• Recap Numbers to 1,000<br>• Recap Number line to 1,000<br>• Round to the nearest 10<br>• Round to the nearest 100<br>• Count in 1,000s<br>• 1,000s, 100s, 10s and 1s<br>• Partitioning<br>• The number line to 10,000<br>• Recap Find 1, 10, 100 more or less<br>• 1,000 more or less<br>• Compare 4-digit numbers | **Year 4**<br>**Addition and Subtraction – 3 weeks**<br><br>• Recap Subtract a 3-digit number from a 3-digit number - exchange<br>• Subtract two 4-digit numbers - one exchange<br>• Subtract two 4-digit numbers - more than one exchange<br>• Efficient subtraction<br>• Estimate answers<br>• Checking strategies<br><br>**Year 4**<br>**Measurement: Length and Perimeter – 2 weeks**<br><br>Recap Equivalent lengths - m and cm |

- Order numbers
- Round to the nearest 1,000
- Count in 25s
- Negative numbers
- Roman numerals

**Year 4**
**Addition and Subtraction – 2 weeks**

- Add and subtract 1s, 10s, 100s and 1,000s
- Recap Add two 3-digit numbers - not crossing 10 or 100
- Add two 4-digit numbers - no exchange
- Recap Add two 3-digit numbers - crossing 10 or 100
- Add two 4-digit numbers - one exchange
- Add two 4-digit numbers - more than one exchange
- Recap Subtract a 3-digit number from a 3-digit number - no exchange
- Subtract two 4-digit numbers - no exchange

Recap Equivalent lengths - mm and cm
Kilometres
Recap Add and Subtract lengths
Recap Measure perimeter
Perimeter on a grid
Perimeter of a rectangle
Perimeter of rectilinear shapes

**Year 4**
**Multiplication and Division – 2 weeks (cont. in Spring)**

- Multiply by 10
- Multiply by 100
- Divide by 10
- Divide by 100
- Multiply by 1 and 0
- Divide by 1 and itself
- Recap Multiply and divide by 3
- Recap The 3 times-table
- Multiply and divide by 6
- 6 times-table and division facts
- Multiply and divide by 9
- 9 times-table and division facts
- Multiply and divide by 7
- 7 times-table and division facts

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| **Upper Key Stage 2** | |
| **Year 5**<br>**Place Value - 3 weeks**<br><br>• Numbers to 10,000<br>• Rounding to 10, 100 and 1,000<br>• Numbers to 100,000<br>• Compare and order numbers to 100,000<br>• Round numbers within 100,000<br>• Numbers to a million<br>• Counting in 10s, 100s, 1,000s, 10,000s and 100,000s<br>• Compare and order numbers to one million<br>• Round numbers to one million<br>• Negative numbers<br>• Roman numerals<br>**Year 6**<br>**Place Value - 3 weeks**<br><br>• Recap Numbers to 10,000<br>• Recap Numbers to 100,000<br>• Recap Numbers to a million<br>• Numbers to 10 million<br>• Compare and order any numbers<br>• Recap Round numbers to 10, 100 and 1,000<br>• Round any numbers<br>• Negative numbers | **Year 5**<br>**Multiplication and Division cont. – 3 weeks**<br>• Square numbers<br>• Cube numbers<br>• Multiply by 10, 100 and 1,000<br>• Divide by 10, 100 and 1,000<br>• Multiples of 10, 100 and 1,000<br><br>**Year 6**<br>**Multiplication and Division cont. – 3 weeks**<br><br>• Long division<br>• Recap Factors<br>• Common factors<br>• Common multiples<br>• Primes to 100<br>• Squares and cubes<br>• Order of operations<br>• Mental calculations and estimation<br>• Reason from known facts |
| **Year 5**<br>**Addition, Subtraction – 3 weeks**<br>• Add whole numbers with more than 4 digits (column method)<br>• Subtract whole numbers with more than 4 digits (column method) | **Year 5**<br>**Fractions – 4 weeks**<br><br>• Equivalent fractions<br>• Improper fractions to mixed numbers |

- Round to estimate and approximate
- Inverse operations (addition and subtraction)
- Multi-step addition and subtraction problem
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### Multiplication and Division – 1 week (Cont. Aut 2)

- Multiples
- Factors and Common factors
- Prime numbers

### Year 6
### Addition, Subtraction – 2 weeks

- Recap Add/Subtract whole numbers with more than 4 digits (column
- Recap Inverse operations (addition and subtraction)
- Multi-step addition and subtraction problems
- Add and subtract integers

### Multiplication and Division – 2 weeks (Cont. Aut 2)

- Recap Multiply 4-d by 1-d, 2-d by 2-d, 3-d by 2-d
- Multiply up to a 4-digit number by a 2-digit number
- Recap Divide 4-digits by 1-digit
- Short division Recap Divide with remainders
- Division using factors

- Mixed numbers to improper fractions
- Number sequences
- Compare and order fractions less than 1
- Compare and order fractions greater than 1
- Add and subtract fractions
- Add fractions within 1
- Add 3 or more fractions
- Add mixed numbers
- Subtract fractions
- Subtract mixed numbers
- Subtraction - breaking the whole
- Subtract 2 mixed numbers
- Multiply unit fractions by an integer
- Multiply non-unit fractions by an integer
- Multiply mixed numbers by integers

### Year 6
### Fractions – 4 weeks

- Recap Equivalent fractions
- Simplify fractions
- Recap Improper fractions to mixed numbers
- Recap Mixed numbers to improper fractions
- Fractions on a number line
- Compare and order (denominator) Compare and order (numerator)
- Add and subtract fractions
- Recap Add mixed numbers
- Add fractions
- Recap Subtract mixed numbers
- Subtract fractions
- Mixed addition and subtraction
- Multiply fractions by integers

|  | • Multiply fractions by fractions<br>• Divide fractions by integers (1)<br>• Divide fractions by integers (2) |
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# KS2 Maths Medium Term Plan 2021-22 – Cycle B

| Spring 1 | Spring 2 |
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| **Lower Key Stage Two** | |

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**Year 3**
**Multiplication and Division – 4 weeks**

- Multiplication - equal groups
- Recap Multiplication using the symbol
- Recap Using arrays
- Recap 2,5,10 times-table and inverse
- Multiply by 3
- Divide by 3
- The 3 times-table
- Multiply by 4
- Divide by 4
- The 4 times-table
- Multiply by 8
- Divide by 8
- The 8 times-table
- Comparing statements
- Related calculations
- Multiply 2-digits by 1-digit
- Multiply 2-digits by 1-digit
- Divide 2-digits by 1-digit
- Divide 2-digits by 1-digit
- Divide 2-digits by 1-digit


**Measurement: Money – 1 week**
- Recap Count money (pence)
- Recap Count money (pounds)
- Pounds and pence
- Convert pounds and pence
- Add money
- Subtract money
- Give change

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**Year 3**
**Y3 Statistics – 2 weeks**

Recap Make tally charts
Recap Draw pictograms (2, 5 and 10)
Recap Interpret pictograms (2, 5 and 10)
Pictograms (use for extra consolidation if needed)
Draw bar charts
Bar charts
Tables


**Fractions – 2 weeks (continue in summer)**
- Recap Activity Working with wholes and parts
- Recap Make equal parts
- Recap Recognise a half
- Recap Find a half
- Recap Recognise a quarter
- Recap Find a quarter
- Recap Recognise a third
- Recap Find a third
- Recap Unit fractions
- Recap Non-unit fractions
- Unit and non-unit fractions (use for consolidation if needed)
- Recap Equivalence of a half and 2 quarters
- Recap Count in fractions


**Revision – 4 days**

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## Year 4
## Multiplication and Division – 4 weeks

- Multiply and divide by 10 and 100
- Multiply by 1 and 0
- Divide by 1 and itself
- Recap Multiply and divide by 3
- Recap The 3 times-table
- Multiply and divide by 6
- 6 times-table and division facts
- Multiply and divide by 9
- 9 times-table and division facts
- Multiply and divide by 7
- 7 times-table and division facts
- 11 and 12 times-table
- Multiply 3 numbers
- Factor pairs
- Efficient multiplication
- Written methods
- Recap Multiply 2-digits by 1-digit
- Multiply 2-digits by 1-digit and 3-digits by 1-digit
- Recap Divide 2-digits by 1-digit (2)
- Divide 2-digits by 1-digit (1)
- Divide 3-digits by 1-digit
- Correspondence problems

## Measurement: Money – 1 week

- Pounds and pence
- Ordering money
- Estimating money
- Recap Convert pounds and pence
- Recap Add money
- Recap Subtract money
- Recap Give change
- Activity Working with money
- Four operations

## Year 4
## Y4 – Statistics – 1 week

- Interpret charts
- Comparison, sum and difference
- Introducing line graphs
- Line graphs

## Y4 – Measurement: Area – 1 week

- What is area?
- Counting squares
- Making shapes
- Comparing area

## Fractions – 2 weeks (continue in summer)

- Recap Unit and non-unit fractions
- What is a fraction?
- Recap Tenths
- Recap Count in tenths
- Recap Equivalent fractions (1)
- Recap Equivalent fractions (2)
- Equivalent fractions (1)
- Equivalent fractions (2)
- Fractions greater than 1

## Revision – 4 days

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| **Upper Key Stage Two** | |
| **Year 5**<br>**Fractions -  1 week**<br>• Recap Calculate fractions of a quantity<br>• Fraction of an amount<br>• Using fractions as operators<br><br>**Geometry: Position and Direction - 1 week**<br>▪ Recap Describe position<br>▪ Recap Draw on a grid<br>▪ Position in the first quadrant<br>▪ Translation<br>▪ Translation with coordinates<br>▪ Recap Line of symmetry<br>▪ Recap Complete a symmetric figure<br>▪ Reflection<br>▪ Reflection with coordinates<br><br>**Decimals and Percentages – 4 weeks**<br><br>▪ Decimals up to 2 d.p•<br>▪ Decimals as fractions (1)<br>▪ Understand thousandths<br>▪ Thousandths as decimals<br>▪ Rounding decimals<br>▪ Order and compare decimals<br>▪ Understand percentages<br>▪ Percentages as fractions and decimals<br>▪ Equivalent F.D.P<br>▪ Adding decimals within 1<br>▪ Subtracting decimals within 1<br>▪ Complements to 1<br>▪ Adding decimals - crossing the whole<br>▪ Adding decimals with the same number of decimal places | **Year 5**<br>**Measurement: Perimeter, Area - 2 weeks**<br>• Measure perimeter<br>• Recap Perimeter on a grid<br>• Recap Perimeter of rectangles<br>• Recap Perimeter of rectilinear shapes<br>• Calculate perimeter<br>• Recap Counting squares<br>• Area of rectangles<br>• Area of compound shapes<br>• Area of irregular shapes<br><br><br>**Y5 – Volume – 2 weeks**<br>• What is volume?<br>• Compare volume<br>• Estimate volume<br>• Estimate capacity<br><br><br>**Revision – 4 days** |

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| <ul><li>Subtracting decimals with the same number of decimal places</li><li>Adding decimals with a different number of decimal places</li><li>Subtracting decimals with a different number of decimal places</li><li>Adding and subtracting wholes and decimals</li><li>Decimal sequences</li><li>Multiplying decimals by 10, 100 and 1,000</li><li>Dividing decimals by 10, 100 and 1,000</li></ul> | |
| **Year 6**<br>**Fractions - 1 week**<br><ul><li>Four rules with fractions</li><li>Fraction of an amount</li><li>Fraction of an amount - find the whole</li></ul><br>**Geometry: Position and Direction - 1 week**<br><br><ul><li>First quadrant</li><li>Four quadrants</li><li>Translations</li><li>Reflections</li></ul><br><br>**Decimals and Percentages – 4 weeks**<br><br><ul><li>Recap Decimals up to 2 d.p.</li><li>Recap Understand thousandths</li><li>Three decimal places</li><li>Multiply by 10, 100 and 1,000</li><li>Divide by 10, 100 and 1,000</li><li>Multiply decimals by integers</li><li>Divide decimals by integers</li><li>Division to solve problems</li><li>Decimals as fractions</li><li>Fractions to decimals</li><li>Recap Understand percentages</li><li>Fractions to percentages</li><li>Equivalent FDP</li><li>Order FDP</li></ul> | **Year 6**<br>**Measurement: Perimeter, Area and Volume – 2 weeks**<br><ul><li>Shapes - same area</li><li>Area and perimeter</li><li>Area of a triangle (1)</li><li>Area of a triangle (2)</li><li>Area of a triangle (3)</li><li>Area of a parallelogram</li><li>Recap What is volume?</li><li>Volume - counting cubes</li><li>Volume of a cuboid</li></ul><br>**Y6 – Algebra – 2 weeks**<br><ul><li>Find a rule - one step</li><li>Find a rule - two step</li><li>Forming expressions</li><li>Substitution</li><li>Formulae</li><li>Forming equations</li><li>Solve simple one-step equations</li><li>Solve two-step equations</li><li>Find pairs of values</li></ul><br><br>**Revision – 4 days** |

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| • Percentage of an amount<br>• Percentages - missing values | |

# KS2 Maths Medium Term Plan 2021-22 – Cycle B

| Summer 1 | Summer 2 |
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| **Lower Key Stage Two** | |

### Year 3
### Fractions – 4 weeks

- Recap Activity Working with wholes and parts
- Recap Make equal parts
- Recap Recognise a half
- Recap Find a half
- Recap Recognise a quarter
- Recap Find a quarter
- Recap Recognise a third
- Recap Find a third
- Recap Unit fractions
- Recap Non-unit fractions
- Unit and non-unit fractions (use for consolidation if needed)
- Recap Equivalence of a half and 2 quarters
- Recap Count in fractions
- Making the whole
- Tenths
- Count in tenths
- Tenths as decimals
- Fractions on a number line
- Fractions of a set of objects (1)
- Equivalent fractions (1)
- Compare fractions
- Order fractions
- Add fractions
- Subtract fractions

### Y3 – Time - 2 weeks

- Recap O'clock and half past
- Recap Quarter past and quarter to
- Months and years
- Hours in a day
- Telling the time to 5 minutes

### Year 3
### Time – 2 weeks

- Activity 24-hour clock
- 24-hour clock
- Finding the duration
- Comparing durations
- Start and end times
- Measuring time in seconds
- Problem solving with time

### Geometry: Properties of Shape – 2 weeks

- Turns and angles
- Right angles in shapes
- Compare angles
- Draw accurately
- Horizontal and vertical
- Parallel and perpendicular
- Recognise and describe 2-D shapes
- Recognise and describe 3-D shapes
- Make 3-D shapes

### Y3 - Measurement: Mass and Capacity – 3 weeks

Activity Measure mass
Recap Compare mass
Measure mass
Compare mass
Add and subtract mass
Activity Measure capacity
Recap Compare volume
Measure capacity (1)
Compare capacity
Add and subtract capacity

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| • Telling the time to the minute<br>• Using a.m. and p.m. | Recap Temperature<br><br>**Revision – 4 days** |
| **Year 4**<br>**Fractions – 4 weeks**<br><br>▪ Count in fractions<br>▪ Recap Add fractions<br>▪ Add 2 or more fractions<br>▪ Recap Subtract fractions<br>▪ Subtract 2 fractions<br>▪ Subtract from whole amounts<br>▪ Recap Fractions of a set of objects (1)<br>▪ Recap Fractions of a set of objects (2)<br>▪ Calculate fractions of a quantity<br>▪ Problem solving - calculate quantities<br><br>**Y4 Decimals – 2 weeks**<br><br>▪ Recognise tenths and hundredths<br>▪ Tenths as decimals<br>▪ Tenths on a place value grid<br>▪ Tenths on a number line<br>▪ Divide 1-digit by 10<br>▪ Divide 2-digits by 10<br>▪ Hundredths<br>▪ Hundredths as decimals<br>▪ Hundredths on a place value grid<br>▪ Divide 1 or 2-digits by 100 | **Year 4**<br>**Time – 2 weeks**<br><br>▪ Recap Telling the time to 5 minutes<br>▪ Recap Telling the time to the minute<br>▪ Recap Using a.m. and p.m.<br>▪ Recap 24-hour clock<br>▪ Hours, minutes and seconds<br>▪ Years, months, weeks and days<br>▪ Activity Analogue to digital (first part of worksheet)<br>▪ Analogue to digital - 12 hour (second part of worksheet)<br>▪ Analogue to digital - 24 hour<br><br>**Geometry: Properties of Shape – 2 weeks**<br><br>▪ Recap Turns and angles<br>▪ Recap Right angles in shapes<br>▪ Recap Compare angles<br>▪ Identify angles<br>▪ Compare and order angles<br>▪ Recap Recognise and describe 2-D shapes<br>▪ Activity Triangles<br>▪ Triangles<br>▪ Activity Quadrilaterals<br>▪ Quadrilaterals<br>▪ Activity Symmetry<br>▪ Recap Horizontal and Vertical<br>▪ Lines of symmetry<br>▪ Complete a symmetric figure<br><br>**Y4 – Geometry: Position and Direction – 2 weeks**<br><br>▪ Describe position<br>▪ Draw on a grid<br>▪ Move on a grid |

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| | ▪ Describe movement on a grid<br><br>**Revision – 4 days** |

## Upper Key Stage Two

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| <u>**Year 5**</u><br><u>**Measurement: Converting units – 1 week**</u><br>▪ Recap Kilometres<br>▪ Kilograms and kilometres<br>▪ Millimetres and millilitres<br>▪ Activity Metric units<br>▪ Metric units<br>▪ Activity Imperial units<br>▪ Imperial units<br>▪ Converting units of time<br>▪ Timetables<br><br><u>**Y5 – Decimals – 2 weeks**</u><br><br>▪ Adding decimals within 1<br>▪ Subtracting decimals within 1<br>▪ Complements to 1<br>▪ Adding decimals - crossing the whole<br>▪ Adding decimals with the same number of decimal places<br>▪ Subtracting decimals with the same number of decimal places<br>▪ Adding decimals with a different number of decimal places<br>▪ Subtracting decimals with a different number of decimal places<br>▪ Adding and subtracting wholes and decimals<br>▪ Decimal sequences<br>▪ Multiplying decimals by 10, 100 and 1,000<br>▪ Dividing decimals by 10, 100 and 1,000<br><br><br><u>**Revision – 4 days**</u> | <u>**Year 5**</u><br><u>**Statistics – 2 weeks**</u><br><br>▪ Recap Interpret charts<br>▪ Recap Comparison, sum and difference<br>▪ Recap Introduce line graphs<br>▪ Read and interpret line graphs<br>▪ Draw line graphs<br>▪ Use line graphs to solve problems<br>▪ Read and interpret tables<br>▪ Two-way tables<br>▪ Timetables<br><br><br><u>**Consolidation and themed projects – 5 weeks**</u> |

## Year 6
### Measurement: Converting units – 1 week

- Metric measures
- Convert metric measures
- Calculate with metric measures
- Miles and kilometres
- Imperial measures

### Y6 - Ratio – 2 weeks

- Use ratio language
- Ratio and fractions
- Introducing the ratio symbol
- Activity Calculating ratio
- Calculating ratio
- Using scale factors
- Calculating scale factors
- Ratio and proportion problems

### Revision – 4 days

## Year 6
### Statistics – 2 weeks

Read and interpret line graphs
Draw line graphs
Use line graphs to solve problems
Circles
Read and interpret pie charts
Pie charts with percentages
Draw pie charts
The mean

### Consolidation and themed projects – 5 weeks