

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

## Autumn 1

## Autumn 2

### Lower Key Stage 2

#### 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 – 3 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
- Add 2-digit and 3-digit numbers - crossing 10 or 100

#### Year 3

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

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

- Subtract a 2-digit number from a 3-digit numbers - crossing 10 or 100

- Recap 2 times-table
- Recap 5 times-table
- Recap Make equal groups - sharing
- Recap Make equal groups - grouping
- Recap Divide by 2
- Recap Divide by 5
- Recap Divide by 10
- 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

### Year 3

#### Geometry Properties of Shape

- 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

**Year 4**  
**Place Value - 4 weeks**

- Recap Numbers to 1,000
- Recap Number line to 1,000
- Round to the nearest 10
- Round to the nearest 100
- Count in 1,000s
- 1,000s, 100s, 10s and 1s
- Partitioning
- The number line to 10,000
- Recap Find 1, 10, 100 more or less
- 1,000 more or less
- Compare 4-digit numbers
- Order numbers
- Round to the nearest 1,000
- Count in 25s
- Negative numbers
- Roman numerals

**Year 4**  
**Addition and Subtraction – 3 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

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

- Recap Subtract a 3-digit number from a 3-digit number - exchange
- Subtract two 4-digit numbers - one exchange
- Subtract two 4-digit numbers - more than one exchange
- Efficient subtraction
- Estimate answers
- Checking strategies

**Year 4**  
**Measurement: Length and Perimeter – 2 weeks**

Recap Equivalent lengths - m and cm  
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 – 3 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

(MISS CARTWRIGHT)

Year 4

**Geometry Properties of Shape**

- Recap Turns and angles
- Recap Right angles in shapes
- Recap Compare angles
- Identify angles
- Compare and order angles
- Recap Recognise and describe 2-D shapes
- Activity Triangles
- Triangles
- Quadrilaterals
- Recap Horizontal and Vertical
- Lines of symmetry
- Complete a symmetric figure

**Upper Key Stage 2**

Year 5

**Place Value - 3 weeks**

- Numbers to 10,000
- Rounding to 10, 100 and 1,000
- Numbers to 100,000
- Compare and order numbers to 100,000

Year 5

**Multiplication and Division cont. – 2 weeks**

- Square numbers
- Cube numbers
- Multiply by 10, 100 and 1,000
- Divide by 10, 100 and 1,000
- Multiples of 10, 100 and 1,000

- Round numbers within 100,000
- Numbers to a million
- Counting in 10s, 100s, 1,000s, 10,000s and 100,000s
- Compare and order numbers to one million
- Round numbers to one million
- Negative numbers
- Roman numerals

**Year 6**  
**Place Value - 3 weeks**

- Recap Numbers to 10,000
- Recap Numbers to 100,000
- Recap Numbers to a million
- Numbers to 10 million
- Compare and order any numbers
- Recap Round numbers to 10, 100 and 1,000
- Round any numbers
- Negative numbers

**Year 6**  
**Multiplication and Division cont. – 2 weeks**

- Long division
- Recap Factors
- Common factors
- Common multiples
- Primes to 100
- Squares and cubes
- Order of operations
- Mental calculations and estimation
- Reason from known facts

**Year 5**  
**Addition, Subtraction – 3 weeks**

- Add whole numbers with more than 4 digits (column method)
- Subtract whole numbers with more than 4 digits (column method)
- Round to estimate and approximate
- Inverse operations (addition and subtraction)
- Multi-step addition and subtraction problem
- 

**Multiplication and Division – 1 week (Cont. Aut 2)**

- Multiples
- Factors and Common factors
- Prime numbers

**Year 6**

**Year 5**  
**Fractions – 5 weeks**

- Equivalent fractions
- Improper fractions to mixed numbers
- 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

### 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

- 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 – 5 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
- Divide fractions by integers (1)
- Divide fractions by integers (2)

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

## Spring 1

## Spring 2

### Lower Key Stage Two

#### 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

#### 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

**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**



**Upper Key Stage Two**

**Year 5**  
**Fractions - 4 days**

- Recap Calculate fractions of a quantity
- Fraction of an amount
- Using fractions as operators

**Geometry: Position and Direction - 1 week**

- Recap Describe position
- Recap Draw on a grid
- Position in the first quadrant
- Translation
- Translation with coordinates
- Recap Line of symmetry
- Recap Complete a symmetric figure
- Reflection
- Reflection with coordinates

**Decimals and Percentages – 4 weeks**

- Decimals up to 2 d.p•
- Decimals as fractions (1)
- Understand thousandths
- Thousandths as decimals
- Rounding decimals
- Order and compare decimals
- Understand percentages
- Percentages as fractions and decimals
- Equivalent F.D.P
- Adding decimals within 1
- Subtracting decimals within 1
- Complements to 1
- Adding decimals - crossing the whole
- Adding decimals with the same number of decimal places

**Year 5**

**Measurement: Perimeter, Area**

- Measure perimeter
- Recap Perimeter on a grid
- Recap Perimeter of rectangles
- Recap Perimeter of rectilinear shapes
- Calculate perimeter
- Recap Counting squares
- Area of rectangles
- Area of compound shapes
- Area of irregular shapes

**Y5 – Volume – 2 weeks**

- What is volume?
- Compare volume
- Estimate volume
- Estimate capacity

**Revision – 4 days**

- Subtracting decimals with the same number of decimal places
- Adding decimals with a different number of decimal places
- Subtracting decimals with a different number of decimal places
- Adding and subtracting wholes and decimals
- Decimal sequences
- Multiplying decimals by 10, 100 and 1,000
- Dividing decimals by 10, 100 and 1,000

**Year 6**  
**Fractions - 4 days**

- Four rules with fractions
- Fraction of an amount
- Fraction of an amount - find the whole

**Geometry: Position and Direction - 1 week**

- First quadrant
- Four quadrants
- Translations
- Reflections

**Decimals and Percentages – 4 weeks**

- Recap Decimals up to 2 d.p.
- Recap Understand thousandths
- Three decimal places
- Multiply by 10, 100 and 1,000
- Divide by 10, 100 and 1,000
- Multiply decimals by integers
- Divide decimals by integers
- Division to solve problems
- Decimals as fractions
- Fractions to decimals
- Recap Understand percentages
- Fractions to percentages
- Equivalent FDP
- Order FDP

**Year 6**

**Measurement: Perimeter, Area and Volume – 2 weeks**

- Shapes - same area
- Area and perimeter
- Area of a triangle (1)
- Area of a triangle (2)
- Area of a triangle (3)
- Area of a parallelogram
- Recap What is volume?
- Volume - counting cubes
- Volume of a cuboid

**Y6 – Algebra – 2 weeks**

- Find a rule - one step
- Find a rule - two step
- Forming expressions
- Substitution
- Formulae
- Forming equations
- Solve simple one-step equations
- Solve two-step equations
- Find pairs of values

**Revision – 4 days**

- Percentage of an amount
- Percentages - missing values

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

## Summer 1

## Summer 2

### Lower Key Stage Two

#### Year 3 Fractions – 3 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

- Telling the time to the minute
- Using a.m. and p.m.

Recap Temperature

Revision – 4 days

**Year 4**  
**Fractions – 3 weeks**

- Count in fractions
- Recap Add fractions
- Add 2 or more fractions
- Recap Subtract fractions
- Subtract 2 fractions
- Subtract from whole amounts
- Recap Fractions of a set of objects (1)
- Recap Fractions of a set of objects (2)
- Calculate fractions of a quantity
- Problem solving - calculate quantities

**Y4 Decimals – 2 weeks**

- Recognise tenths and hundredths
- Tenths as decimals
- Tenths on a place value grid
- Tenths on a number line
- Divide 1-digit by 10
- Divide 2-digits by 10
- Hundredths
- Hundredths as decimals
- Hundredths on a place value grid
- Divide 1 or 2-digits by 100

**Year 4**  
**Time – 2 weeks**

- Recap Telling the time to 5 minutes
- Recap Telling the time to the minute
- Recap Using a.m. and p.m.
- Recap 24-hour clock
- Hours, minutes and seconds
- Years, months, weeks and days
- Activity Analogue to digital (first part of worksheet)
- Analogue to digital - 12 hour (second part of worksheet)
- Analogue to digital - 24 hour

**Geometry: Properties of Shape – 2 weeks**

- Recap Turns and angles
- Recap Right angles in shapes
- Recap Compare angles
- Identify angles
- Compare and order angles
- Recap Recognise and describe 2-D shapes
- Activity Triangles
- Triangles
- Activity Quadrilaterals
- Quadrilaterals
- Activity Symmetry
- Recap Horizontal and Vertical
- Lines of symmetry
- Complete a symmetric figure

**Y4 – Geometry: Position and Direction – 2 weeks**

- Describe position
- Draw on a grid
- Move on a grid

- Describe movement on a grid

Revision – 4 days

## Upper Key Stage Two

### Year 5

#### Measurement: Converting units – 1 week

- Recap Kilometres
- Kilograms and kilometres
- Millimetres and millilitres
- Activity Metric units
- Metric units
- Activity Imperial units
- Imperial units
- Converting units of time
- Timetables

#### Y5 – Decimals – 2 weeks

- Adding decimals within 1
- Subtracting decimals within 1
- Complements to 1
- Adding decimals - crossing the whole
- Adding decimals with the same number of decimal places
- Subtracting decimals with the same number of decimal places
- Adding decimals with a different number of decimal places
- Subtracting decimals with a different number of decimal places
- Adding and subtracting wholes and decimals
- Decimal sequences
- Multiplying decimals by 10, 100 and 1,000
- Dividing decimals by 10, 100 and 1,000

Revision – 4 days

### Year 5

#### Statistics – 2 weeks

- Recap Interpret charts
- Recap Comparison, sum and difference
- Recap Introduce line graphs
- Read and interpret line graphs
- Draw line graphs
- Use line graphs to solve problems
- Read and interpret tables
- Two-way tables
- Timetables

#### Consolidation and themed projects – 5 weeks

## 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