Year 1 maths overview based on WRM objectives

Autumn Term

Place Value – within 10

- Sort objects.
- Count objects.
- Represent objects.
- Count, read and write forwards from any number 0 to 10.
- Count, read and write backwards from any number 0 to 10.
- Count one more.
- Count one less.
- One-to-one correspondence to start to compare groups.
- Compare groups using language.
- Introduce < > and = symbols.
- Compare numbers.
- Order groups of objects.
- Order numbers.
- Ordinal numbers.
- Number line.

Addition and subtraction

- Part-whole model.
- Addition symbols.
- Fact families.
- Find number bonds within 10.
- Systematic methods with number bonds to 10.
- Number bonds to 10.
- Adding together.
- Adding more.
- Finding a part.
- Taking away.
- Using the subtracting symbol.
- Finding a part.
- Fact families.
- Counting back. Finding the difference.
- Comparing adding and subtracting.

Shape

- Recognise and name 3D shapes.
- Sort 3D shapes.
- Recognise and name 2D shapes.
- Patterns with 3-D and 2-D shapes.

Place Value – within 20

- Count forwards and backwards to numbers to 20 and write in words.
- Numbers from 11 to 20.
- Tens and ones.
- Count one more and one less.
- Compare groups of objects.
- Compare numbers.
- Order groups of objects.
- Order numbers.

Spring Term

Addition and subtraction – within 10

- Add by counting on.
- Find and make number bonds.
- Add by making 10.
- Subtraction – Not crossing 10.
- Subtraction -Crossing 10.
- Subtraction – Crossing 10.
- Related facts.
- Compare number sentences.

Place value – within 50

- Numbers to 50.
- Ten and ones.
- Represent numbers to 50.
- One more one less.
- Compare objects within 50.
- Compare numbers within 50.
- Order numbers within 50.
- Count in 2s.
- Count in 5s.

Length and height

- Compare lengths and heights.
- Measure length.
- Measure length.

Weight and volume

- Introduce weight and mass.
- Measure mass.
- Compare mass.
- Introduce capacity and volume.
- Measure capacity.
- Compare capacity.

Summer Term

Multiplication and division

- Count in 2s.
- Count in 5s.
- Count in 10s.
- Make equal groups.
- Add equal groups.
- Make arrays.
- Make doubles.
- Make equal groups – grouping.
- Make equal groups – sharing.

Fractions

- Find a half.
- Find a half.
- Find a quarter.
- Find a quarter.

Position and direction

- Describe turns.
- Describe position.
- Describe position.

Place Value within 100

- Counting forwards and backwards within 100.
- Partitioning numbers.
- Comparing numbers.
- Comparing numbers.
- Ordering numbers.
- One more, one less.

Money

- Recognising coins.
- Recognising notes.
- Counting in coins.

Time

- Before and after.
- Dates.
- Time to the hour.
- Time to the half hour.
- Writing time.
- Comparing time.

Year 2 maths overview based on WRM objectives

Autumn Term

Place Value

- Counting forwards and backwards within 20.
- Tens and ones within 20.
- Counting forwards and backwards within 50.
- Tens and ones within 50.
- Count objects to 100 and write numbers in numerals.
- Represent numbers to 100.
- Tens and ones with a part-whole model.
- Tens and ones using addition.
- Use a place value chart.
- Compare objects.
- Compare numbers.
- Order objects and numbers.
- Count in 2s.
- Count in 5s.
- Count in 10s.
- Count in 3s.

Addition and subtraction

- Fact families.
- Check calculations.
- Compare number sentences.
- Related facts.
- Bonds to 100 (tens).
- Add and subtract 1s.
- 10 more and 10 less.
- Add and subtract 10s.
- Add by making 10.
- Add a 2-digit and 1 digit – crossing 10.
- Subtract a 1 digit from a 2 digit number – crossing 10.
- Add two 2-digit numbers – not crossing ten.
- Add two 2-digit numbers – crossing 10.
- Subtract a 2-digit number from a 2-digit number – not crossing ten.
- Subtract a 2-digit number from a 2-digit number –crossing ten.
- Find and make number bonds.
- Bonds to 100 (tens and ones).
- Add three 1-digit numbers.

Shape

- Recognising coins and notes
- Count money – pence
- Count money – pounds
- Count money – notes and coins
- Select money
- Make the same amount
- Compare money
- Find the total
- Find the difference
- Find change
- Two-step problems.

Multiplication and division

- Make equal groups
- Add equal groups
- Mare arrays

Spring Term

Multiplication and division

- Recognise equal groups
- Make equal groups
- Add equal groups
- Multiplication sentences using the x symbol
- Multiplication sentences from pictures
- Use arrays
- Make doubles
- 2 times-table
- 5 times-table
- 10 times-table
- Make equal groups – sharing
- Make equal groups – sharing
- Make equal groups – grouping
- Make equal groups – grouping
- Divide by 2
- Odd and even numbers
- Divide by 5. Divide by 10

Statistics

- Make tally charts
- Draw pictograms
- Interpret pictograms
- Draw pictograms
- Interpret pictograms
- Block diagrams.

Properties of shape

- Recognise 2D and 3D shapes
- Count sides on 2D shapes
- Count vertices on 2D shapes
- Draw 2D shapes
- Lines of symmetry
- Sort 2-D shapes
- Make patterns with 2D shapes
- Count faces on 3D shapes
- Count edges on 3D shapes
- Count vertices on 3D shapes
- Sort 3D shapes
- Make patterns with 3D shapes.

Fractions

- Make equal parts
- Recognise a half
- Find a half
- Recognise a quarter
- Find a quarter
- Recognise a third
- Find a third
- Unit fractions
- Non-unit fractions
- Equivalence of ½ and 2/4
- Find three quarters
- Count in fractions

Summer Term

Length and Height

- Compare lengths and heights
- Measure lengths
- Measure lengths
- Measure length cm
- Measure length m
- Compare lengths
- Order lengths
- Four operations and lengths.

Position and direction

- Describe position
- Describe position
- Describe movement
- Describe turns
- Describe movement and turns
- Making patterns with shapes

Time

- Telling time to the hour
- Telling time to the half hour
- O'clock and half past
- Quarter past and quarter to
- Telling time to 5 minutes
- Writing time
- Hours and days
- Find durations of time
- Compare durations of time.

Mass, capacity and temperature

- Introduce weight and mass
- Measure mass
- Compare mass
- Measure mass in grams
- Measure mass in kg
- Introduce capacity and volume
- Measure capacity
- Compare volume
- Millilitres
- Litres
- Temperature.

Year 3 maths overview based on WRM objectives

Autumn Term

Place Value

- Represent numbers to 100
- Tens and ones using addition
- Hundreds
- Represent numbers to 1000. 100s, 10s and 1s
- 100s, 10s, 1s
- Number line to 1000
- Find 1, 10, 100 more or less than a given number
- Compare objects to 1000
- Compare numbers to 1000
- Order numbers
- Count in 50s

Addition and subtraction

- Add and subtract multiples of 100.
- Add and subtract 1s.
- Add and subtract 3-digit numbers by 1 digit – not crossing 10.
- Add a 2-digit and 1-digit number – crossing 10.
- Add 3-digit and 1-digit numbers – crossing 10.
- Subtract a 1-digit number from 2digits – crossing 1-.
- 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 two 2-digit numbers – crossing 10 – add ones and add tens.
- Subtract a 2-digit number form a 2-digit number – crossing 10.
- Add and subtract a 2-digit and 3-digit numbers – not crossing 10 or 100.
- Add a 2-digit number and 3-digit – crossing 10 or 100.
- Subtract a 2-digit number form a 3-digit number – crossing 10 or 100.
- Add two 2 -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.

Multiplication and division

- Multiplication – equal groups
- Multiplication using the symbol
- Using arrays, 2 times-table, 5 times-table
- Make equal groups – sharing
- Make equal groups – grouping
- Divide by 2
- Divide by 5
- Divide by 10
- Multiply by 3
- Divide by 3
- The 3 times table
- Multiply by 4
- Divide by 4
- The 3 times table
- Multiply by 8
- Divide by 8
- The 8 times table.

Spring Term

Multiplication and division

- Consolidate 2, 4 and 8 times-table
- Comparing statements
- Related calculations
- Multiply 2-digits by 1-digit (1),
- Multiply 2-digits by 1-digit (2)
- Divide 2-digits by 1 digit (1)
- Divide 2-digits by 1 digit (2)
- Divide 2-digits by 1 digit (3)
- Scaling
- How many ways?

Measurement

- Count money (pence)
- Count money (pounds)
- Pounds and pence
- Convert pounds and pence
- Add money
- Subtract money
- Give change

Statistics

- Make tally charts
- Draw pictograms (2, 5 and 10)
- Interpret pictograms (2, 5 and 10)
- Pictograms
- Bar charts
- Tables

Length and perimeter

- Measure lengths
- measure length (m)
- Equivalent – m and cm
- Equivalent lengths – mm and cm
- Compare lengths
- Compare lengths
- Add lengths
- Subtract lengths
- Measure perimeter
- Calculate perimeter

Fractions

- Make equal parts
- Recognise a half
- Find a half
- Recognise a quarter
- Find a quarter
- Recognise a third
- Find a third
- Unit fractions
- Non-unit fractions
- Equivalence of ½ and 2/4
- Count in fractions

Summer Term

Fractions

- Making the whole
- Tenths
- Count in tenths
- Tenths as decimals
- Fractions on a number line
- Fractions of a set of objects (1)
- Fractions of a set of objects (2)
- Fractions of a set of objects (3)
- Equivalent fractions (1)
- Equivalent fractions (2)
- Equivalent fractions (3)
- Compare fractions
- Order fractions
- Add fractions
- Subtract fractions

Time

- O'clock and half past
- Quarter past and quarter to
- Months and years
- Hours in a day
- Telling the time to 5 minutes
- Telling the time to the minute
- Using a.m and p.m
- 24-hour clock
- Finding the duration
- Comparing durations
- Start and end times
- Measuring time in seconds

Properties of Shapes

- 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 maths overview based on WRM objectives

Autumn Term

Place Value

- Represent numbers to 1000, 100s, 10s and 1s
- Number line to 1000
- Round to the nearest 10
- Round to the nearest 100
- Count in 1,000s, 1,000s, 100s 10s and 1s
- Partitioning
- Number line to 10,000
- Find 1, 10, 100 more or less
- 1000 more or less
- Compare numbers

Addition and subtraction

- Add and subtract 1s, 10s, 100s and 1000s
- Add two 3-digit numbers not crossing 10 or 100
- Add two 4-digit numbers – no exchange
- 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
- Subtract a 3-digit number from a 3-digit number – no exchange
- Subtract a 3-digit number from a 3-digit number –exchange
- Subtract a 3-digit number from a 3-digit number – one exchange
- Subtract a 3-digit number from a 3-digit number –more than one exchange
- Efficient subtraction
- Estimate answers
- Checking strategies.

Length and Perimeter

- Equivalent lengths – m and cm,
- Equivalent lengths mm and cm
- Kilometres
- Add lengths
- Subtract lengths
- Measure perimeter
- Perimeter on a grid
- Perimeter of a rectangle
- Perimeter of rectilinear shapes.

Multiplication and division

- Multiply by 10, multiply by 100
- Divide by 10
- Divide by 100,
- Multiply by 1 and 0
- Divide by 1 and itself
- Multiply and divide by 3
- 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.

Spring Term

Multiplication and division

- 11 and 12 times-table
- Multiply 3 numbers
- Factor pairs
- Efficient multiplication
- Written methods
- Multiply 2-digits by 1 digit (1)
- Multiply 2-digits by 1 digit (2)
- Multiply 3-digits by 1 digit
- Divide 2-digits by 1-digit (1)
- Divide 2-digits by 1 digit (1)
- Divide 2-digits by 1-digit (2)
- Divide 2-digits by 1-digit (3)
- Divide 3-divide by 1-digit
- Correspondence problems

Area

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

Fractions

- Unit and non-unit fractions
- What is a fraction?
- Tenths
- Count in tenths
- Equivalent fractions (1)
- Equivalent fractions (2)
- Equivalent fractions (1)
- Equivalent fractions (2)
- Fractions greater than 1
- Count in fractions
- Add fractions
- Add 2 or more fractions
- Subtract fractions
- Subtract 2 fractions
- Subtract from whole amounts
- Fractions of a set of objects (1)
- Fractions of a set of objects (2)
- Calculate fractions of a quantity
- Problem solving – calculate quantities

Decimals

- 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-digit by 10
- Hundredths
- Hundredths as decimals
- Hundredths on a place value grid
- Divide 1 or 2-digits by 100.

Summer Term

Decimals

- Bonds to 10 and 100
- Make a whole
- Write decimals
- Compare decimals
- Order decimals
- Round decimals
- Halves and quarters

Money

- Pounds and pence
- Ordering money
- Estimating money
- Convert pounds and pence
- Add money
- Subtract money
- Find change
- Four operations

Time

- Telling the time to 5 minutes
- Telling the time to the minute
- Using a.m and p.m, 24-hour clock
- Hours
- Minutes and seconds
- Years
- Months
- Weeks and days
- Analogue to digital – 12 hour
- Analogue to digital – 24 hour

Statistics

- Interpret charts
- Comparison
- Sum and difference
- Introducing line graphs
- Line graphs

Properties of shape

- Turns and angles
- Right angles in shapes
- Compare angles
- Identity angles
- Comparing and order angles
- Recognise and describe 2-D shapes
- Triangles
- Quadrilaterals
- Horizontal and vertical
- Lines of symmetry
- Complete a symmetric figure

Position and direction

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

Year 5 maths overview based on WRM objectives

Autumn Term

Place value

- 1000s, 100s, 10s and 1s
- Numbers to 10,000ounding t
- Rounding to the nearest 10
- Rounding to the nearest 100
- Round to nearest 10, 100 and 1000
- Numbers to 100,000
- Compare and order numbers to 100,000,
- Round numbers within 100,000
- Numbers to a million
- Counting in 10s, 100s, 1000s, 10,000s and 100,000s
- Compare and order numbers to one million
- Round numbers to one million
- Negative numbers
- Roman numerals to 1000.

Addition and subtraction

- Add two 4-digits numbers – one exchange
- Add two 4-digits numbers – more than one exchange
- Add whole numbers with more than 4 digits (column method)
- Subtracting two 4-digit numbers – one exchange
- Subtract two 4-digit numbers – more than one exchange
- 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 problems

Statistics

- Interpret charts
- Comparison
- Sum and difference
- 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.

Multiplication and division

- Multiples
- Factors
- Common factors
- Prime numbers
- Square numbers
- Cube numbers
- Multiply by 10
- Multiply by 100
- Multiply by 10, 100 and 1000
- Divide by 10
- Divide by 100
- Divide by 10, 100 and 1000
- Multiples of 10, 100 and 1000.

Perimeter and area

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

Spring Term

Multiplication and division

- Multiply 2-digits by 1-digit
- Multiply 3-digits by 1-digit
- Multiply 4-digits by 1-digit
- Multiply 2-digits (area model)
- Multiply 2-digits by 2-digits
- Multiply 3-digits by 2-digits
- Multiply 4-digits by 2-digits
- Divide 2-digits by 1 digit (1)
- Divide 2-digits by 1 digit (2)
- Divide 3-digits by 1-digit
- Divide 4-digits by 1 digit
- Divide with remainders.

Fractions

- What is fraction?
- Equivalent fractions (1)
- Equivalent fractions (2)
- Fractions greater than 1
- 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
- Add fractions within 1
- Add 3 or more fraction
- Add fractions
- Add mixed numbers
- Subtract fractions
- Subtract mixed numbers
- Subtract – breaking the whole
- Subtract 2 mixed numbers
- Multiply unit fractions by an integer
- Multiply non-unit fractions by an integers
- Multiply mixed numbers an integers
- Calculate fractions of a quantity
- Fraction of an amount
- Using fractions as operators

Decimals and percentages

- Decimals up to 2d.p
- Decimals as fractions (1)
- Decimals as fractions (2)
- Understand thousandths
- Thousandths as decimals
- Rounding decimals
- Order and compare decimals
- Understand percentages
- Percentages as fractions and decimals
- Equivalent F.D.P

Summer Term

Decimals

- 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 decimals
- Adding decimals with a different number of decimal places
- Subtracting decimals with a different number of decimal places
- Adding and subtract wholes and decimal
- Decimal sequences
- Multiplying decimals by 10, 100 and 1000
- Dividing decimals by 10, 100 and 1000

Properties of shape

- Identify angles, compare and order angles
- Measure angles in degrees
- Measuring with a protractor (1)
- Measuring with a protractor (2)
- Drawing line and angles accurately
- Calculating angles on a straight line
- Calculating angles around a point, triangles
- Quadrilaterals, calculating lengths and angles in shape
- Regular and irregular polygons
- Reasoning about 3-D shapes

Position and direction

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

Converting units

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

Volume

- What is volume
- Compare volume
- Estimate volume
- Estimate capacity.

Year 6 maths overview based on WRM objectives

Autumn Term

Place value

- Numbers to 10,000
- numbers to 100,000
- numbers to a million
- numbers to ten million
- compare and order any number
- round numbers to 10, 100 and 1,000.
- Round any number
- Negative numbers

Addition, subtraction, multiplication and division

- Add whole numbers with more than 4 digits
- Subtract whole numbers with more than 4 digits.
- Inverse operations (addition and subtraction)
- Multi-step addition and subtraction problems.
- Add and subtract integers
- Multiply 4-digits by 1-digit
- Multiply 2-digits (area model)
- Multiply 2-digits by 2-digits
- Multiply 3-digits by 2-digits
- Multiply up to a 4-digit number by a 2-digit number
- Divide 4-digits by 1-digit
- Divide with remainders
- Short division
- Division using factors
- Long division (1)
- Long division (2)
- Long division (3)
- Long division (4)
- Factors
- Common factors
- Common multiples
- Primes to 100
- Squares and cubes
- Order of operations
- Mental calculations and estimation
- Reason from known facts

Fractions

- Equivalent fractions
- Simplify fractions
- Improper fractions to mixed numbers
- Mixed numbers to improper fractions
- Fractions on a number line
- Compare and order (denominator)
- Compare and order (numerator)
- Add and subtract fractions (1)
- Add and subtract fractions (2)
- Add mixed numbers
- Add fractions
- Subtract mixed numbers
- Subtract fractions
- Mixed addition and subtraction
- Multiply fractions by integers
- Multiply fractions by fractions
- Divide fractions by fractions
- Divide fractions by fractions
- Four rules with fractions
- Fraction of an amount
- Fraction of an amount – find a whole

Position and direction

- The first quadrant
- Four quadrants
- Translations
- Reflections

Spring Term

Decimals

- Decimals up to 2 decimal places
- Understand thousandths
- Three decimal places
- Multiply 10, 100 and 1000.
- Divide by 10, 100 and 1000.
- Multiply decimals by integers
- Divide decimals by integers
- Division to solve problems
- Decimals as fractions
- Fractions to decimals (1)
- Fractions to decimals (2)

Percentages

- Understand percentages
- Fractions to percentages
- Equivalent FDP
- Order FDP
- Percentage of an amount (1)
- Percentage of an amount (2)
- Percentages – missing values

Algebra

- 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
- Enumerate possibilities

Converting units

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

Perimeter, area and volume

- Shapes – same area
- Area and perimeter
- Area of a triangle
- Area of a triangle
- Area of a triangle
- Area of a parallelogram
- What is volume
- Volume – counting cubes
- Volume of a cuboid

Ratio

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

Summer Term

Statistics

- 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

Properties of shape

- Measure with a protractor
- Draw lines and angles accurately
- Introduce angles
- Angles on a straight line
- Angles around a point
- Calculate angles
- Vertically opposite angles
- Angles in a triangle
- Angles in a triangle – special cases
- Angles in a triangle – missing angles
- Angles in special quadrilaterals
- Angles in regular polygons
- Draw shapes accurately
- Draw nets of 3-D shapes