



Subject: Maths

Year 5

Overview

In year 5, pupils will continue to work with increasingly large numbers and practise solving multi-step problems in context. They'll also expand their knowledge of 2D and 3D shapes and practise converting between different units of measurement. There are eight key areas of study included in the maths curriculum for this school year, which are: Number and Place Value, Addition and Subtraction, Multiplication and Division, Fractions, Measurement, Properties of Shape, Position and Direction, Statistics.

Autumn

Autumn Term

Place Value

- Roman numerals to 1,000
- Numbers to 10,000 / 100,000 / 1,000,000
- Read and write numbers to 1,000,000
- Powers of 10
- 10/100/1,000/10,000/100,000 more or less
- Partition numbers to 1,000,000
- Number line to 1,000,000
- Compare and order numbers to 100,000 / 1,000,000
- Round to the nearest 10, 100 or 1,000
- Round within 100,000 / 1,000,000

Addition and subtraction

- Mental strategies
- Add whole numbers with more than four digits
- Subtract whole numbers with more than four digits
- Round to check answers
- Inverse operations (addition and subtraction)
- Multi-step addition and subtraction problems
- Compare calculations
- Find missing numbers

Multiplication and Division

- Multiples
- Factors
- Prime numbers
- 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

Fractions

- Find fractions equivalent to a unit fraction
- Find fractions equivalent to a non-unit fraction
- Recognise equivalent fractions
- Convert improper fractions to mixed numbers
- Convert mixed numbers to improper fractions
- Compare fractions less than 1
- Order fractions less than 1
- Compare and order fractions greater than 1
- Add and subtract fractions with the same denominator
- Add fractions within 1
- Add fractions with total greater than 1
- Add to a mixed number
- Add two mixed numbers
- Subtract fractions
- Subtract from a mixed number
- Subtract from a mixed number – breaking the whole
- Subtract two mixed numbers

Assessment:

Formative assessment is ongoing in the classroom: targeted questions, 'show me' on a whiteboard, teacher monitoring

Every unit will have a short 'low-stakes' assessment task at the end to check pupils' knowledge. These will involve a selection of test-style questions and records are kept by the class teacher.

At the end of Autumn and Spring term, there is an assessment which is in two parts: Arithmetic and Reasoning. These are timed and test the content taught so far that year.

Spring Term**Multiplication and division**

- Multiply up to a 4-digit number by a 1-digit number
- Multiply a 2-digit number by a 2-digit number (area model)
- Multiply a 2-digit number by a 2-digit number
- Multiply a 3-digit number by a 2-digit number
- Multiply a 4-digit number by a 2-digit number
- Solve problems with multiplication
- Short division
- Divide a 4-digit number by a 1-digit number
- Divide with remainders
- Efficient division
- Solve problems with multiplication and division

Fractions

- Multiply a unit fraction by an integer
- Multiply a non-unit fraction by an integer
- Multiply a mixed number by an integer
- Calculate a fraction of a quantity
- Fraction of an amount
- Find the whole
- Use fractions as operators

Decimals and percentages

- Decimals up to 2 decimal places
- Equivalent fractions and decimals (tenths)
- Equivalent fractions and decimals (hundredths)
- Equivalent fractions and decimals
- Thousandths as fractions
- Thousandths as decimals
- Thousandths on a place value chart
- Order and compare decimals (same number of decimal places)
- Order and compare any decimals with up to 3 decimal places
- Round to the nearest whole number
- Round to 1 decimal place
- Understand percentages
- Percentages as fractions
- Percentages as decimals
- Equivalent fractions, decimals and percentages

Perimeter and area

- Perimeter of rectangles
- Perimeter of rectilinear shapes
- Perimeter of polygons
- Area of rectangles
- Area of compound shapes
- Estimate area

Statistics

- Draw line graphs
- Read and interpret line graphs
- Read and interpret tables
- Two-way tables
- Read and interpret timetables

Assessment:

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At the end of Spring term, there is an assessment which is in two parts: Arithmetic and Reasoning. These are timed and test the content taught so far that year.

Summer Term**Shape**

- Identify angles
- Compare and order angles
- Measure angles in degrees
- Measuring with a protractor
- Drawing lines and angles accurately
- Calculating angles on a straight line
- Calculating angles around a point
- Triangles
- Quadrilaterals
- Calculating lengths and angles in shapes
- Regular and irregular polygons
- Reasoning about 3-D shapes

Position and Direction

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

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 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

Negative Numbers**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

Assessment:

Formative assessment is ongoing in the classroom: targeted questions, 'show me' on a whiteboard, teacher monitoring

Every unit will have a short 'low-stakes' assessment task at the end to check pupils' knowledge. These will involve a selection of test-style questions and records are kept by the class teacher.

Summer term- GL assessment. These are used to measure progress across year groups and for year 5s, progress made since the end of year 4. They cover questions on the full breadth of the curriculum and include a mental maths task.

Mock SATs test will be used as a starting point for entry into year 6.

Useful resources for supporting your child at home:

- BBC Bitesize
- Videos on Century (<https://www.century.tech>)
- Videos and worksheets on Corbett Maths Primary (<https://corbettmathsprimary.com/>)
- CGP KS2 revision guides/work books

Homework:

Homework will be set weekly.