How much curriculum time is given to Maths in KS2?

Pupils have 5 hours of maths each week. They are taught in their mixed-ability tutor groups. At Edwinstree we teach maths using manipulatives, pictures, diagrams and abstract calculations through problem-solving and reasoning. Challenge Home Learning enables pupils to select key skills that need additional practise to work on at home.

What topics is my child covering in the Spring Term?

Year 5 learn to:

Compare and order fractions whose denominators are multiples of the same number.

Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.

Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number.

Add and subtract fractions with the same denominator and denominators that are multiples of the same number.

Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.

Read and write decimal numbers as fractions.

Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Read, write, order and compare numbers with up to three decimal places.

Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.

Round decimals with two decimal places to the nearest whole number and to one decimal place.

Solve problems involving number up to three decimal places.

Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.

Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.

Solve problems which require knowing percentage and decimal equivalents of halves, quarters, fifths and tenths and those fractions with a denominator of a multiple of 10 or 25

Year 6 learn to:

Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.

Compare and order fractions, including fractions > 1

Generate and describe linear number sequences (with fractions)

Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions.

Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example 1/ 4 x 1/ 2 = 1/ 8]

Divide proper fractions by whole numbers [for example 1/ 3 ÷ 2 = 1/ 6]

Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example 3/8]

Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Number: Decimals Identify the value of each digit in numbers given to three decimal places and multiply numbers by 10, 100 and 1000 giving answers up to 3 decimal places (dp).

Multiply one digit numbers with up to 2dp by whole numbers.

Use written division methods in cases where the answer has up to two decimal places.

Solve problems which require answers to be rounded to specified degrees of accuracy.

Solve problems involving the calculation of percentages [for example, of measures such as 15% of 360] and the use of percentages for comparison.

Recall and use equivalences between simple Fractions, Decimals and Percentages including in different contexts.

Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.

Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp.

Convert between miles and kilometres.

Recognise that shapes with the same areas can have different perimeters and vice versa.

Recognise when it is possible to use formulae for area and volume of shapes.

Calculate the area of parallelograms and triangles.

Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm3, m3 and extending to other units (mm3, km3).

Use simple formulae.

Generate and describe linear number sequences.

Express missing number problems algebraically.

Find pairs of numbers that satisfy an equation with two unknowns.

Enumerate possibilities of combinations of two variables.

Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.

Solve problems involving similar shapes where the scale factor is known or can be found.

Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

If you would like to support our work on Fractions, Decimals and Percentages, the following activities and resources may be helpful:

The maths passports for Fractions, Decimals and Percentages include lots of useful tools and examples.

My Mini Maths website has Back to Basics calculations by year group along with themed calculations. TT38 helps with learning times-table facts. There are 52 arithmetic papers here along with a tracking sheet to record progress.

BBC Bitesize have useful explanations and examples.

Youtube have some great videos by maths teachers on how to calculate using Base ten or Cuisenaire.

Power of 2 books and resources can be purchased from their website 123 Learning.

Play games that encourage use of equivalent fractions, decimals and percentages.

Explore real world contexts for using fractions, decimals and percentages e.g. shop sales, money, measurements, cooking.

Topmarks website have some good problem-solving and reasoning questions.

Maths is Fun website has lots of different games to be played on the computer developing logic, number, calculations etc.

How much curriculum time is given to Maths in KS3?

Pupils in Y7 have 5 hours of maths each week. Pupils in Y8 have 4 hours each week. They are taught in their mixed-ability tutor groups. At Edwinstree we teach maths using manipulatives, pictures, diagrams and abstract calculations through problem-solving and reasoning. Challenge Home Learning enables pupils to select key skills that need additional practise to work on at home.

What topics is my child covering in the Spring Term?

Year 7 learn to:

Represent fractions using diagrams and on a number line.

Express one quantity as a fraction of another.

Identify and use equivalent fractions.

Compare and order fractions; use the symbols =, ≠, <, >, ≤, ≥

Convert between mixed numbers and improper fractions.

Simplify fractions.

Convert between fractions and decimals,: tenths, hundredths, thousandths. Associating a fraction with division to convert any fraction to a decimal.

Use the concepts and vocabulary of multiples and lowest common multiple (LCM).

Add and subtract any fraction including fractions with the same denominator, fractions with a denominator that is a multiple of the other, fractions with different denominators

Find a fraction of an amount.

Understand the data handling cycle.

Understand the different types of data.

Collect, organise and interpret data: tally charts, two-way tables, median, mode and range. Consider outliers

Draw and interpret bar charts, pictograms and line graphs.

Use the four operations with negative numbers.

Year 8 learn to:

Substitute numerical values into formulae and expressions, including scientific formulae. · Include all prior learning specifically fractions, decimals and negatives

Simplify and manipulate algebraic expressions to maintain equivalence by: · multiplying a single term over a bracket · taking out common factors · expanding products of two or more binomials. · simplifying expressions involving sums, products and powers, including the laws of indices.

Use algebraic methods to solve linear equations in one variable (including all forms that require rearrangement) · Include equations with brackets · Include fractional equations

Understand and use the concepts and vocabulary of inequalities. · Represent the solution set to an inequality on a number line and vice versa · Find the integer solutions of an inequality. · Solve linear inequalities in one variable.

Rearrange formulae to change the subject, where the subject appears once.

Convert between cm2 and m2

Derive and apply formulae to calculate and solve problems involving area of circles, composite shapes and trapeziums.

Calculate and solve problems involving perimeters of 2-D shapes (including circles).

Include examples using algebra, fractions, decimals, etc.

If you would like to support our work on fractions, decimals, percentages and algebra, the following activities and resources may be helpful:

The maths passports for Fractions, Decimals and Percentages include lots of useful tools and examples.

My Mini Maths website has Back to Basics calculations by year group along with themed calculations. TT38 helps with learning times-table facts. There are 52 arithmetic papers here along with a tracking sheet to record progress.

BBC Bitesize have useful explanations and examples.

Youtube have some great videos by maths teachers on how to calculate using Base ten or Cuisenaire and how to represent multiplication and division of fractions using a pictorial method.

Power of 2 books and resources can be purchased from their website 123 Learning.

Play games that encourage the use of equivalent fractions, decimals and percentages or logical thinking.

Undertake real-world maths related to these areas: shopping sales, baking, measurements.

Topmarks website have some good problem-solving and reasoning questions.

Maths is Fun website has lots of different games to be played on the computer developing logic, number, calculations, fractions etc.

Dara O'Briain's School of Hard Sums on Dave have some great mathematical problems – we like the Chocolate-Chilli Roulette – beware of occasional inappropriate language.