KS3 Curriculum

The strands of mathematics that are taught at KS3 are:

- Number
- Algebra
- Geometry and Measures
- Statistics
- Probability

Functional maths and using and applying maths is incorporated in the KS3 syllabus.

Mathematics Course Summaries

Year 7

By the end of Year 7 most pupils should be able to:

Use mixture of mental methods to do calculations

Add, subtract, multiply and divide on paper

Add and subtract decimals to 2 places

Order decimals with up to 3 decimal places

Check an answer makes sense to the question

Know what multiples, factors, prime numbers and square numbers are

Begin to use simple word equations

Understand the order of operations

Substitute whole numbers into expressions

Simplify simple expressions by collecting like terms

Solve linear equations and inequality

Use coordinates in all 4 quadrants

Measure and draw angles to the nearest degree

Use correct units and instruments to read measurements

Find perimeters of shapes

Find areas of simple shapes by counting squares and using formulae

Find averages and the range for a set of data

Represent data using bar charts, line graphs or pie charts

Year 8

By the end of Year 8 most pupils should be able to:

Add, subtract, multiply and divide decimals with up to 2 decimal places

Order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥

Round a number to a given number of decimal places

Solve simple ratio and proportion problems

Divide an amount in a ratio

Work out fractional and percentage parts of things

Use brackets and BIDMAS accurately

Use correct algebraic notation e.g. 4a for 4 x a, a2 for a x a

Solve simple equations

Draw straight line graphs

Convert between metric measures

Know and use the formulae for circumference and area of circle

Reflect, rotate and translate a shape

Compare 2 sets of data using mode, median or mean and the range

Interpret graphs and make conclusions

Find probabilities of equally likely events

Understand that the probabilities of all possible outcomes sum to 1

Year 9

By the end of Year 9 most pupils should be able to:

Use trial and improvement methods

Round to 1 significant figure to obtain estimates

Round to a given number of significant figures

Calculate using ratios and proportion

Add and subtract fractions with different denominators (including mixed numbers)

Standard Form

Ratio and proportion reasoning

Interpret and compare numbers in standard form A x 10^ 1≤A<10, where n is a positive or negative integer or zero

Recognise an arithmetic sequence and find the nth term

Recognise a geometric sequence and find the next term

Use and interpret algebraic notation

Co-ordinates and linear graphs

Form and solve linear equations

Problem solving using equations

Use angle facts with parallel and intersecting lines

Know and use Pythagoras' Theorem

Devise instructions to create loci

Enlarge shapes by a positive whole scale factor

Construct pie charts

Draw scatter diagrams for bivariate data

Draw conclusions from scatter diagrams

Find all outcomes from 2 events happening together

Know the total probabilities of mutually exclusive outcomes is 1