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# MATHS

## CURRICULUM 2018-19

## KEY STAGE 3

Mathematics is an interconnected subject in which you need to be able to move fluently between representations of mathematical ideas. The programme of study for Key Stage 3 is organised into apparently distinct domains, but is built on Key Stage 2 and connections across mathematical ideas to develop fluency, mathematical reasoning, and competence in solving increasingly sophisticated problems. Mathematical knowledge is also applied in science, geography, computing, and other subjects.

Students in Year 7 & 8 will follow the National Curriculum KS3 programmes of study which cover all areas of mathematics:

- Number – number place and value & Calculations
- Algebra
- Fractions, decimals & percentages
- Geometry – measurements, mensuration & calculation, properties of shapes & construction and position & direction
- Statistics
- Ratio & proportion

All students will complete assessments at the end of each taught topic.  These will be graded using the Lancashire Local Authority band system which will enable them to track progress and identify strengths and weaknesses in different areas.  In addition to this, once a term they will complete GCSE exam style papers to assess overall learning.

In mathematics, the best way to improve is through regular practice.  Students can consolidate work they have been taught using online resources from the websites listed on the Maths curriculum page.  They can also use these to learn new topics before they are taught. One of the key concepts in mathematics is problem solving and reasoning.  The more you do this type of activity, the better your skills become in these areas.  You can go onto the NRICH website to access different types of problems.

SHUTTLEWORTH
COLLEGE

# MATHS

## CURRICULUM 2018-19

## KEY STAGE 4

At Key Stage 4, students will follow the syllabus for Edexcel GCSE (9-1) Mathematics. This is a three year course designed to:

•Develop fluent knowledge, skills and understanding of mathematical methods, and develop concepts

•Acquire, select, and apply mathematical techniques to solve problems

•Reason mathematically, make deductions and inferences, and draw conclusions

•Comprehend, interpret, and communicate mathematical information in a variety of form appropriate to the information and context

GCSE Mathematics will cover content across all areas of mathematics, including:

•Number

•Algebra

•Ratio, proporton & rates of change

•Geometry & measures

•Probability

•Statistics

Over the course of three years, students will have end of topic assessments which will be based on exam style questions.  Each term they will also sit a GCSE exam paper to assess their overall progress.  At the end of Year 11, students will sit three official mathematics papers, which each have a duration of 1 hour and 30 minutes.

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