

Mathematics

Head of Department:
Miss H Ball

CORE

It is an exciting time for mathematics with the government changes to the GCSE curriculum. The Mathematics curriculum will be two-tier and students will be awarded a number grade with 9 being the highest possible and 1 being the lowest. Currently the most able are entered for an extra GCSE in Further Mathematics, this will be evaluated as more details of the new Mathematics Curriculum are published.

GCSE Mathematics

Awarding Body: Edexcel
Possible Grades: 9-1

Course Outline

The curriculum is split into 6 sections. These are Number, Algebra, Ratio and Proportion, Geometry and Measure, Probability and, Statistics. There is more of an emphasis being placed on problem solving and developing fluent knowledge with students no longer being given any formulae in the exam. There has been a shift of a number of key topics from Higher tier to Foundation tier such as Trigonometry, factorising quadratics and compound interest.

Number includes:

Knowledge of basic arithmetic; efficient use of a calculator; solving problems involving fractions, decimals and percentages

Algebra includes:

Manipulating algebraic expressions; solving equations; linking equations to their graphs.

Ratio and Proportion includes:

Sharing in given ratios; rates of change; converting units

Geometry and Measure includes:

Using angle and other geometrical facts; working with areas and volumes; understanding transformations and some trigonometry.

Probability includes:

Venn diagrams; Tree diagrams; Sample space diagrams

Statistics includes:

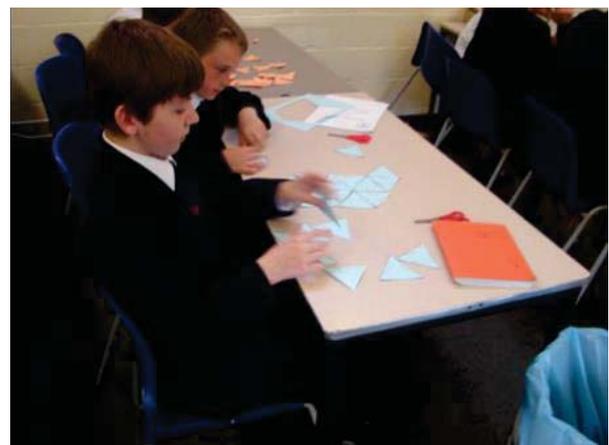
Ways of collecting, recording and analysing data; using averages and ranges; drawing and interpreting different statistical graphs

Lessons will involve a variety of activities and tasks. Students will sometimes work individually and at other times in pairs or small groups. Staff use practical activities and ICT to help make the lessons interactive and enjoyable.

Assessment

Written examination: 100%

Terminal examinations consist of three papers, one non-calculator and two with calculator.



Specification link

<http://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html>

We do not recommend a textbook but students will have online access to one via www.kerboodle.com.

We also subscribe to www.mymaths.co.uk so students can access help and support there.
