

Mathematics Curriculum Guide

Year 11

Exam Board: Edexcel GCSE Maths 1MA1

To find out more about this course please follow the link below. https://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html

Pupils will complete the remainder of the GCSE curriculum in Year 11. Material is structured to build on techniques that have been developed in Year 10 and at Key Stage 3. There is an emphasis on problem solving particularly with questions given in context. Pupils are monitored closely and RAG documents from Mock assessments are produced to monitor pupils progress and to identify areas requiring more in depth revision in the build up to the final GCSE exams. Techniques and fundamental skills are consolidated and applied in a variety of contexts to help prepare pupils for exams in Year 11. Pupils will be exposed to a wide range of questions given at GCSE and will sit two Mocks.

We Endeavour to encourage pupils to be more independent learners with less reliance on instruction and more on guided self-study.

The topics in green fall under Number, Algebra or Ratio and Proportion; those in blue are in the Statistics, Geometry and Probability strands.

Autumn Taught Content

14. Multiplicative Reasoning

16a. Quadratic Equations: Expanding and Factorising

13a. Probability 1

13b. Probability 2

16b. Quadratic Equations: Graphs

20. Rearranging equations

Graphs of cubic and reciprocal functions

12. Right-angled triangles: Pythagoras and trigonometry

Spring Taught Content

Simultaneous Equations

18a. Fractions and reciprocals

Graphs of circles

Proof

17. Circles, cylinders, cones and spheres

15a. Plans, Elevations and Nets

15b. Constructions, loci and bearings

Graphs of Trig functions

18b. Indices and Standard Form

Reciprocal & exponential graphs, gradient and area under graph

Direct and Inverse Proportion

19a. Similarity and congruence in 2D

19b. Vectors

Further trigonometry

Circle geometry

Summer Taught Content

REVISION/ PAST PAPERS

Assessment

Pupils sit two Mock exams, one in the Autumn term and the other in the Spring term. The final GCSE exam is taken in the Summer.

Homework Expectations

Each class is taught by two teachers. Homework will be set on a weekly basis by teachers using a combination of written and electronic work on Mymaths.

Useful resources and websites

- Mymaths
- Eedi Maths
- Maths made Easy
- GCSE Pod
- Ipswich Maths

Mathematics is a subject that lends itself well to society. We strive to ensure pupils achieve expected grades and that they are able to apply Mathematical skills learned to improve the quality of their lives; becoming fluent in the fundamental techniques so that they can recall and apply them accurately to solve problems will help them achieve this. We also aim to have a strong take up of Maths at A-Level for Mathematicians and as a supporting qualification for other subjects.

Extra and Super Curricular Opportunities

Individual Maths Challenges (Intermediate and Senior) GCSE Statistics (voluntary for top set pupils) Level 2 AQA Further Maths (voluntary for top set pupils) Revision after-school sessions