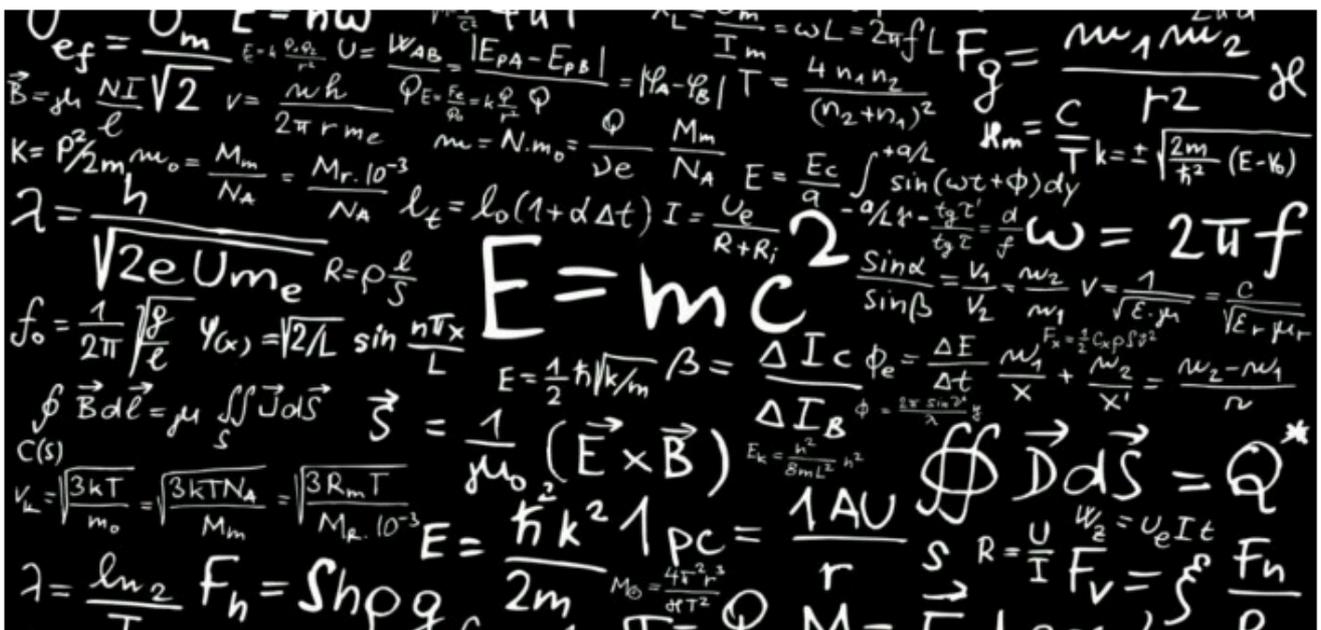




Upton Court
GRAMMAR SCHOOL

Mathematics Department

Starting your
GCSEs



Structure of exams

The assessments will cover the following content headings:

- Number
- Algebra
- Ratio, proportion and rates of change
- Probability
- Statistics

Two tiers are available: Foundation and Higher (content is defined for each tier).

The qualification consists of three equally-weighted written examination papers at either Foundation tier or Higher tier

Paper 1 is a non-calculator assessment and Paper 2 and 3 are calculator assessments.

Each paper is 1 hour and 30 minutes long and each paper has 80 marks.

The content outlined for each tier will be assessed across all three papers.

The qualification will be graded and certificated on a nine-grade scale from 9 to 1 using the total marks across all three papers (grade 9 is the highest grade).

Foundation tier: grades 1 to 5.

Higher tier: grades 4 to 9 (grade 3 allowed)

Final tier of entry decided in year 11.

Formula's Provided:

The following formulae will be provided for students within the relevant examination questions.

Perimeter, area, surface area and volume formulae

Where r is the radius of the sphere or cone, l is the slant height of a cone and h is the perpendicular height of a cone:

$$\text{Curved surface area of a cone} = \pi r l$$

$$\text{Surface area of a sphere} = 4\pi r^2$$

$$\text{Volume of a sphere} = \frac{4}{3}\pi r^3$$

$$\text{Volume of a cone} = \frac{1}{3}\pi r^2 h$$

Strategies for Learning

Consolidating Learning



Research shows that reviewing information soon after it has been learnt allows students to remember much more. Returning to the learning from a lesson later in the same day will allow you to be much more successful.

Organising Learning



You will complete a significant amount of classwork, homework, independent work and other activities in preparation for your GCSE exams. Successful students find ways to organise their time and learning effectively so that it is of use to them.

COPE Strategies:

- Create flash cards after each lesson or at the end of each week covering key content.
- Keep a log of key quotations on an ongoing basis.
- Use Quizlet and Memorise regularly.
- Review class notes within 24 hours of the lesson.

COPE Strategies:

- Write a blog to share your learning with others.
- Support KS3 students to strengthen your skills.
- Create a homework timetable.
- Title and date your work clearly.
- Complete exam questions in timed conditions.
- Use banks of practice questions

Preparing Revision Materials

Successful students prepare for revision and revise earlier topics throughout the year – this means creating revision materials throughout the year in preparation for the exam period. They will also revise constantly so they do not become rusty on earlier topics. They use in class assessments and Pre-Public exams to perfect their revision strategies.



Exam Practice

Ultimately, your success will be measured in the public exams at the end of Year 11. Successful students practise many past papers, find effective ways to monitor and improve their exam technique, and are very familiar with the mark scheme and how it will be applied.



Useful Websites



The Edexcel website provides useful information on the specification, practice papers and mark schemes for Mathematics.

Mathematics Specification:

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

Sample Assessment Papers:

<http://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.news.html?article=%2Fcontent%2Fdemo%2Fen%2Fnews-policy%2Fqualifications%2Fedexcel-gcses%2Fmathematics%2FDownload-our-new-SAMs-and-2-new-sets-of-specimen-papers>

Active Learn:

<https://www.pearsonactivelearn.com/>

Mathswatch:

<https://www.mathswatchvle.com/>

Nrich Mathematics:

<http://nrich.maths.org/frontpage>