Grade 12 Mathematics will be learning…

Term 1	Term 2	Term 3	Working towards
We will be following the GED Curriculum supported by Edexcel A-Level (C3 and C4) extended curriculum. Within these units we will learn: **ALGEBRA (C4)** **Partial fractions.** Distinct linear factors Repeated linear factors Improper fractions **CALCULUS** **Differentiation I.** Rates of change Tangent to a curve Gradient of a curve Differentiation The notation Function notation Vocabulary Differentiating from first principles Differentiation of polynomials Tangents and normals **Differentiation II.** Increasing and decreasing functions Stationary points Identifying the type of a stationary point Maximum and minimum problems Students will complete activities such as: Worksheets related to the topic and structured by levels of understanding Problem solving activities to deepen into	Within these units we will learn: **TRIGONOMETRY (C2 & C3)** **Reciprocal functions.** Definitions Identities Graphs Comparing the 6 trigonometric functions Identities and equations **Addition formulae.** sin(A ± B), cos(A ± B), tan(A ± B) Advanced applications of all previous formulae **Double angle formulae.** Sin2A, cos2A, tan2A Advanced applications of all previous formulae **Half angle formulae.** Sin0.5A, cos0.5A, tan0.5A Advanced applications of all previous formulae **INTEGRATION** **Integration I.** The reverse of differentiation Finding the constant C Using the integral sign Rules for integrating x^n Integration of a polynomial Applying integration **Integration II.** Indefinite and definite integrals Area under a curve	Within these units we will learn: **Probability.** Elementary probability The terminology of probability Sample space Addition rule Multiplication rule Tree diagrams Independent and mutually exclusive events Number of arrangements *General revision of all the topics.* Students will complete activities such as: Worksheets related to the topic and structured by levels of understanding Problem solving activities to deepen into their mathematical vocabulary as well as the application of Maths to different kinds of problems. At least one activity, text or problem related to real world skills. At least once a week starter related to previous topics to reinforce the memory. Teachers will use tasks to assess core module learning objectives and monitor progress. At the end of the unit students will complete an "Exit Point", it means, a	Practice with GED past papers. There will be two of these practical tests between September and December. Introduction of Mathematical language and meaning of symbols.

their mathematical vocabulary as well as the application of Maths to different kinds of problems. At least one activity, text or problem related to real world skills. At least once a week starter related to previous topics to reinforce the memory. Teachers will use tasks to assess core module learning objectives and monitor progress. At the end of the unit students will complete an "Exit Point", it means, a short assessment to help teachers evaluate student's progress throughout the unit. The Final evaluation will be arithmetic mean among the homework, the quizzes (exit points) and tests we will do during each term.	To find an area using integration Area between a curve and a straight line Area between 2 curves The trapezium rule Formula for the trapezium rule Students will complete activities such as: Worksheets related to the topic and structured by levels of understanding Problem solving activities to deepen into their mathematical vocabulary as well as the application of Maths to different kinds of problems. At least one activity, text or problem related to real world skills. At least once a week starter related to previous topics to reinforce the memory. Teachers will use tasks to assess core module learning objectives and monitor progress. At the end of the unit students will complete an "Exit Point", it means, a short assessment to help teachers evaluate student's progress throughout the unit. The Final evaluation will be arithmetic mean among the homework, the quizzes (exit points)	short assessment to help teachers evaluate student's progress throughout the unit. The Final evaluation will be arithmetic mean among the homework, the quizzes (exit points) and tests we will do during each term.	

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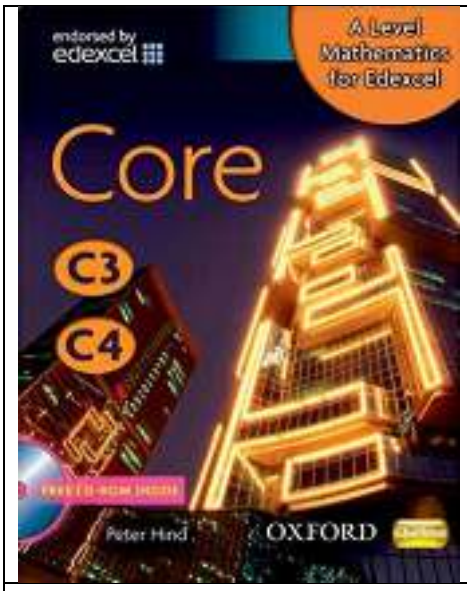
Books you may find useful:

	**A Level Mathematics for Edexcel: Core C3/C4** • **Language:** English • **ISBN-10:** 0199117845 • **ISBN-13:** 978-0199117840
Teacher's notes and printed copies. Exercises from A-level Maths (C3 and C4) past papers. AS Maths.	