

Takapuna Grammar School

Level 2 Mathematics

Course Outline, L2MAC 2022



Recommended Achievement Levels

Success in the NCEA Level 1 Mathematics course, ideally achieved with Merit in 1.2 Algebra, 1.3 Tables, Equations and Graphs and 1.6 Geometry.

Description / Aims of the Course / Course Content

The aim of the course is to introduce and develop advanced mathematical skills, concepts and understanding of the Level 7 Mathematics Curriculum in the areas of Patterns and Relationships and Equations and Expressions and Calculus.

This course will cover two of the NCEA Level 2 Mathematics Achievement externally assessed standards and two Level 2 internally assessed standards. It is possible to obtain a maximum of 16 credits. It contains four subject areas and uses three Walker Maths Level 2 Mathematics workbooks for extra practice and homework. By the end of this course, students will have developed sufficient knowledge and skills to solve problems by applying algebraic, calculus, graphical and trigonometric methods.

Methods of Assessment

Students will be assessed on a basis of a three-hour external exam in November. This exam will consist of two standards.

These standards are:

AS 91261	2.6	Apply algebraic methods in solving problems
AS 91262	2.7	Apply calculus methods in solving problems

Two achievement standards will be assessed internally as common assessment tasks. There will be no opportunities for reassessment.

The internally assessed achievement standards are as follows:

AS 91257	2.2	Apply graphical methods in solving problems
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This will be assessed as an in-class assessment task in Term two, week 4 beginning 23 May 2022.

AS 91259	2.4	Apply trigonometric relationships in solving equations.
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This will be assessed as an in-class assessment task in Term one, week 10 beginning 4 April 2022.

All internally assessed achievement standards will follow the school and NCEA policies and procedures on lateness, misconduct, extensions, missed / delayed assessments and appeals. Exact assessment dates will be given to students at the beginning of the teaching of each topic. An assessment will not automatically be open for absentee catch-up if a student is absent. If an internal assessment is missed, there must be valid medical evidence to say why that student was absent.

There will also be a series of common tests throughout the year. Students will be informed prior to the test date. There will be a common practice external, based on past examination papers, on every topic. These results are recorded for both school and NCEA purposes. There will also be a 3-hour mock examination in September, during weeks 9 and 10 of Term 3. These assessments are important as practice for the November examination and provide evidence for the award of school subject prizes as well as derived grades if needed.

Student Work

Every student must use two 1J5 or 1J8 Quad Exercise Books, one to be used for theory notes the other for practice. It is expected that the student will bring all appropriate mathematical equipment for each lesson, each day. Teachers will instruct students that all necessary working must be shown. It is suggested that students buy a 40-page clear file to ensure safe storage of worksheets, test revisions and assessments during the year.

If a student is absent from class on any given day, it is the student's responsibility to catch up on missed work. This means that all students must ensure that they copy out any missed theory notes, collect missed hand-outs and catch up on any work set during their absence.

All students must bring a graphic calculator to every lesson. The Casio model fx-9750GII is recommended, as teachers will be able to demonstrate and instruct students in the use of this model. These calculators can be purchased through the stationery shop. Students must provide their own calculators for all assessments.

Homework

Every teacher will set homework for about 30 minutes per lesson. The student should record this with clear reference to exercise and page numbers in their diary. Parents are encouraged to support their child to ensure that everything has been completed on time. The homework can be a project, investigation activity, preparation for an assessment, pages from a homework book or the completion of an exercise from class. It is the responsibility of each student to ensure that all work set is completed and marked. We encourage students who are struggling with their homework or maths tasks to seek additional support at Maths Coaching, in RN46, on Tuesdays 3.05 to 4.05.

Every Level 2 Mathematics student is expected to buy three Walker Maths Level 2 workbooks about Algebra, Calculus and Trigonometry as well as one TGS 2.2 Graphs workbook. These workbooks can be purchased through the stationery shop.

General

If you have any concerns regarding your child's progress in Mathematics, please contact the Mathematics Faculty Leader - Mrs. C. Udy-Bothwell. c.udy-bothwell@tgs.school.nz.

2022 TGS Year Planner for L2MAC

TERM	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	
ONE	31/1 – 4/2	7/2 – 11/2	14/2 – 18/2	21/2 – 25/2	28/2 – 4/3	7/3 – 11/3	14/3 – 18/3	21/3 – 25/3	28/3 – 1/4	4/4 – 8/4	11/4 – 14/4	
Topic		2.6 Algebra Part 1					2.4 Trigonometry				2.2 Graphs	
Assess		Monday 7th Waitangi Day			2.6 Part topic test					2.4 Internal	Friday 15th Good Friday	
TERM	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10		
TWO	2/5 – 6/5	9/5 – 13/5	16/5 – 20/5	23/5 – 27/5	30/5 – 3/6	6/6 – 10/6	13/6 – 17/6	20/6 – 24/6	27/6 – 1/7	4/7 – 8/7		
Topic	2.2 Non-Linear Graphs				2.7 Calculus Part 1				2.6 Algebra 2			
Assess				2.2 Internal		Monday 6th Queen's Birthday		2.7 part topic test Friday 24th Wharfeday				
TERM	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10		
THREE	25/7 – 29/7	1/8 – 5/8	8/8 – 12/8	15/8 – 19/8	22/8 – 26/8	29/8 – 2/9	5/9 – 9/9	12/9 – 16/9	19/9 – 23/9	26/9 – 30/9		
Topic	2.6 Algebra Part 2			2.7 Calculus Part 2				Revision and Exams				
Assess			Algebra Full topic test			Friday 2nd 8:40 Day	Calculus Full topic test					
TERM	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8				
FOUR	17/10 – 21/10	24/10 – 28/10	31/10 – 4/11	7/11 – 11/11	14/11 – 18/11	21/11 – 25/11	28/11 – 2/12	5/12 – 9/12				
Topic	Revision for NZQA Exams											
Assess		Mon 24th Labour Day						Friday 9th Last Day				