



Rangi Ruru
Girls' School

YEAR 11A PANGARAU MATHEMATICS

Programme of Learning 2024

In your Y11 Mathematics course you will be studying the Level 1 NZ Mathematics Curriculum as part of your NCEA Level 1 qualification. You will have the opportunity to be assessed for **three** Achievement Standards, each worth 5 credits, to gain up to 15 credits for your NCEA. This will consist of two Internal Achievement Standards and one External Achievement Standard from the list below:

Achievement Std number:	Subject Ref	Version	Title	Mode	Credits
AS 91944	1.1	1	Explore data using a Statistical Enquiry Process	Internal	5
AS 91945	1.2	1	Use Mathematical models to explore problems that relate to life in Aotearoa New Zealand or the Pacific	Internal	5
AS 91947	1.4	1	Demonstrate mathematical reasoning	External	5

Rangi Values	How will ākonga demonstrate these values?	Rangi Graduate Dispositions	How will ākonga develop these dispositions?	Culturally Empowering Pedagogy	
Respect/Whakaute	Ākonga will show respect for their classmates at all times, understanding the need for differentiation, and differing paces of learning. Ākonga will show respect for the subject and Kaiako by completing homework, listening and following all instructions.	Be You	Ākonga are encouraged to be curious through asking questions. Ākonga are encouraged to develop their learning strategies through trying different approaches to see what works for them.	Tikanga, Te Reo Maori and Mātauranga Maori will be woven into this learning through:	Kaiako and Ākonga are encouraged to use te reo maori where they feel appropriate/confident. The environment will demonstrate Manaakitanga for all Ākonga. Authentic mātauranga maori mathematical contexts will be included where appropriate. All Ākonga will see where the Mathematics being studied is relevant to them – purpose, how it relates to them and fits into their world (the Kaupapa).
Aroha	Ākonga will support other learners by participating in an inclusive and positive classroom culture	Belong	Ākonga are encouraged to link their learning to personal experiences and local contexts (e.g. real-life Numeracy examples)		
Enthusiasm & Endeavour Rikarika & Ngana	Ākonga will strive for their own personal best in learning, and will be encouraged to attempt extension activities, online practice, and attend offered tutorials.	Be The Change	Ākonga are encouraged to be creative with solutions and developing original solutions.	Opportunities for cultures of other students will be incorporated through:	
Generosity of Spirit Manaakitanga	Ākonga will support each other and provide support for others when needed, helping classmates when appropriate.	Be Your Best	Ākonga are encouraged to strive for their own personal best in their learning – personalised learning.		
Integrity/Tika	Ākonga will show integrity by ensuring they submit authentic evidence of their learning.			Opportunities to think & connect as a globally minded citizen will include:	Learners will be encouraged to investigate Mathematics in other cultures.

Progress outcomes typically by the end of year 11		
Understand/ kia mārama	Know/ kia mōhio	Do/kia mahi
<ul style="list-style-type: none"> * The world is full of patterns and structures that we use mathematics to understand * The world is characterised by change and variation that we use mathematics to understand * Mathematical logic and reasoning enable us to identify and explain relationships and to justify conclusions. * The interface between mātauranga Māori and mātauranga mathematics offers opportunities for insights that uphold the integrity of each knowledge system * Mathematics has a continuous, evolving human history. 	<ul style="list-style-type: none"> *explain different sources of variation in the data collection process *Present data visually and describe and justify features in context *incorporate statistical and contextual knowledge, including connecting ideas and reflecting on the statistical enquiry process. *use mathematical methods to explore problems that relate to life in Aotearoa New Zealand or the Pacific, including the use of relational and extended abstract thinking, from at least two of these processes: Numeric, Algebraic, Measurement and Geometric/Spatial. *developing a clear chain of logical reasoning *forming a generalisation or providing a proof *extending mathematical methods to investigate or solve a problem 	<ul style="list-style-type: none"> Te tūhura pūāhua Investigating situations Te whakaata pūāhua Representing situations Te tūhono pūāhua Connecting situations Te whakatauhānui i ngā kitenga Generalising findings Te whakamārama me te parahau i ngā kitenga Explaining and justifying findings

Assessment

Important Information for Internal Assessments:

- **Absences** – It is important that you do not miss any assessments (Internal or External) except for genuine reasons of sickness, accident or other extreme emergency. Providing a Medical Certificate from your Doctor must cover absence during an assessment. On your return to school you will be given the opportunity to do the task for the particular Achievement Standard. This will NOT be possible if you choose to go on a family holiday, or similar non-school related event, at the time of assessment.
- **Assessment Policies** – Information regarding the school policy on assessment, authenticity and appeal procedures is found on <https://hub.rangiruru.school.nz/assessment/>. Ensure you read these thoroughly and follow all guidelines. Know your rights and responsibilities.
- **Filing** – When an Internal assessment task has been marked you will be asked to **verify the sighting and acceptance of the grade awarded by signing the cover sheet**. All assessed work will then be filed at school for security and for moderation by NZQA, if required.
- **Assessment** – If a '**Not Achieved**' grade is awarded for an **internally** assessed Achievement Standard, there will be no further assessment opportunities in that Achievement Standard.
- You **may be** offered the opportunity of a **resubmission** if your work requires minor corrections or change that you may have overlooked and should be able to identify within a few minutes. Your teacher will approach you prior to the task being handed back to the class as a whole if this is relevant for you. You will be required to identify and make any changes immediately. Your teacher is **not** able to tell you of the specific change required; you must be able to identify the required change yourself.

Work Organisation

For some topics you may be given a write-on workbook.

It is important that you have good organizational skills to file all learning for the External Standard carefully for future revision. You **MUST** have a separate clearfile for Mathematics, or a separate section in your folder, with clear labels for each topic.

A Graphics Calculator is strongly encouraged.