Rangi Ruru Girls' School

Science for Citizenship

Programme of Learning

Ko te manu kai i te miro, nōna te ngāhere. Ko te manu kai i te mātauranga, nōna te ao.

The bird that consumes the miro berry owns the forest; the bird that consumes knowledge, owns the world.

Welcome to Science for Citizenship! We hope that your year will be interesting, valuable, challenging and successful.

Many of the major challenges that confront our world need to be approached from a scientific perspective. We hope that the topics covered in this course will increase your ability to weigh up the Scientific issues that you will encounter in your lifetime and make sound decisions based on your analysis. You will also investigate the Geological and Biological processes that have helped shape places of significance within Aotearoa.

In Science for Citizenship, your Rangi Ruru values and Rangi Graduate dispositions will be demonstrated through:

Whakaute Respect: Acknowledge and respect different perspectives.

Aroha: Take opportunities to work with others in a supportive way.

Rikarika Endeavour: Take responsibility for your own learning and give things a go.

Ngaana Enthusiasm: Have a positive attitude towards learning.

Manaakitanga - Generosity of Spirit: Listen carefully to other's opinions and be curious.

Tika Integrity · Be honest about your own work and be responsible for your own behaviours.

What will you begin to understand in Science for Citizenship this year?

Science helps us make sense of and care for our world.	Science connects us to the world we live in and reminds us of our interconnectedness with all other life forms. To understand the world, we must understand the relationships between ourselves and the environment in which we live and our role as guardians of the land, kaitiakitanga.
The composition and processes occurring within the Earth and its atmosphere shape the Earth's surface and its climate	Our understanding of the natural geological, biological and physical processes that govern the climate help us better understand our influence on it.
Science is elegant, explorative, creative and powerful.	Science uses data, evidence and relationships to find out, explore and explain.
Applications of science often have ethical, social, economic, and political implications	The use of scientific knowledge in technologies makes many innovations possible. Whether or not particular applications of science are desirable is a matter that science alone cannot address. Ethical and moral judgments may be needed, based on such considerations as human safety and impacts on people and the environment

What will you know and do in Science for Citizenship this year?

This year you will

- Investigate how different plants successfully survive in different altitudes at Mt Cook.
- Analyse the geological processes that formed Mt Cook and the surrounding landscape.
- Examine an Earth and Space Issue, such as Climate Change or a special interest topic you may have.
- Analysing scientific information in media articles related to vaccination.
- Extend your understanding of Genetic variation and evolution **or**
- Develop an understanding the causes of extreme Earth events in New Zealand, such as earthquakes, volcanic eruptions, and tsunamis, by examining processes in the geosphere, hydrosphere, biosphere, and atmosphere.

Achievement Standards offered in Level 2 Science 2025

Achievement standard	Title	Credits	Internal/ External
AS91158	Investigate a pattern in an ecological community, with supervision (Version 2)	4	Internal
AS91154	Analyse the biological validity of information presented to the public (Version 2)	3	Internal
AS91188	Examine an Earth and Space Issue and the validity of the information communicated to the public (Version 2)	4	Internal
AS91189	Investigate geological processes in a NZ locality (Version 2)	4	Internal
AS91157	Demonstrate understanding of Genetic Variation and Change (Version 2)	4	External
AS91191	Demonstrate understanding of the causes of extreme Earth events in New Zealand (Version 2)	4	External

Credits: 19

Note: you will be given the opportunity to decide, as a class, which of the two External Standards you want to learn in Term 3 at the beginning of the year.

Assessment Information

- 5 Achievement Standards will be offered with a total of 19 credits.
- 1 Achievement Standard will be assessed by an external examination (credits). Formative assessments and a Derived Grade assessment will be used as indicators of your progress.
- 4 Achievement Standards will be assessed internally during the year (15 credits).

ESS 2.2	Socio-scientific Issue	Term 1 week 6	4 credits
BIO 2.6	Ecological Investigation	Term 2 week 5	4 credits
ESS 2.3	Geology of Mt. Cook	Term 2 week 8	3 credits
BIO 2.2	Analysing Bio Information	Term 3 week 4	3 credits

All Achievement Standard tasks will have a checklist of what is required to attain an Achieved, Achieved with Merit or Achieved with Excellence.

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 www.rangilife.school.nz (Student links/Curriculum support/NCEA). Ensure you read these thoroughly and follow all guidelines. Know your rights and responsibilities.

- **Authenticity of your assessments** – You will be asked to sign a declaration at the beginning of the year that all work completed for assessment for qualification is your own. If evidence of plagiarism is found in an assessment, the grade of "Not Achieved" will be presented.

  Authenticity means that you will:

  - Produce your best work independently and have a trail of evidence to show the development of the work
  - Provide oral clarification, if necessary, to show the depth of your understanding
  - Integrate, acknowledge, and reference your research appropriately
  - Use AI with integrity by disclosing when, where, and how you have used AI. AI use should be consistent with the AI Acceptable Use Policy

  Authenticity means that the teacher will:

  - Monitor your progress by checking drafts, version histories and give feedback.
  - Communicate the authenticity expectations for each assignment task.
  - Seek oral clarification if required.

- **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 a 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.

Online Learning and Workbooks

Education Perfect online platform will be used for the learning of the internal and external standards. A workbook (Scipad for the BIO 2.5 Standard or ESA for the ESS 2.5 standard) will also be used for specifically for the learning of the selected external standard.

Rangi Ruru Girls' School
BE YOU. BELONG.

Level 2 Science for Citizenship Year Planner - 2025

	Week		Date From		Date To
ESS 2.2 (I)	1	A	27 January	-	2 February
Waitangi Day Thursday 6th February	2	B	3 February	-	9 February
	3	A	10 February	-	16 February
	4	B	17 February	-	23 February
ESS 2.2 assessment beings on 24th	5	A	24 February	-	2 March
ESS 2.2 assessment due on 2nd	6	B	3 March	-	9 March
BIO 2.6 (I)	7	A	10 March	-	16 March
	8	B	17 March	-	23 March
	9	A	24 March	-	30 March
ESS 2.3 (I)	10	B	31 March	-	6 April
			7 April	-	13 April
Good Friday 18th April, Easter Monday 21 April			14 April	-	20 April
ANZAC Day Friday 25th April			21 April	-	27 April
TERM TWO	1	A	28 April	-	4 May
	2	B	5 May	-	11 May
Mt. Cook Field Trip 12th-14th BIO 2.6 assessment beings on 15th		A	12 May	-	18 May
	4	B	19 May	-	25 May
BIO 2.6 assessment due on 1st	5	A	26 May	-	1 June
King's Birthday Monday 2nd ESS 2.3 assessment begins on 3rd	6	B	2 June	-	8 June
	7	A	9 June	-	15 June
Matariki Friday 20th ESS 2.3 due on 22nd	8	B	16 June	-	22 June
BIO 2.2 (I)	9	A	23 June	-	29 June
			30 June	-	6 July
			7 July	-	13 July
			14 July	-	20 July
TERM THREE	1	B	21 July	-	27 July
	2	A	28 July	-	3 August
BIO 2.2 assessment begins on 4th	3	B	4 August	-	10 August
BIO 2.2 assessment due on 17th	4	A	11 August	-	17 August
BIO 2.5 or ESS 2.5	5	B	18 August	-	24 August
	6	A	25 August	-	31 August
	7	B	1 September	-	7 September
	8	A	8 September	-	14 September
	9	B	15 September	-	21 September
			22 September	-	28 September
			29 September	-	5 October
	1	A	6 October	-	12 October
	2	B	13 October	-	19 October
	3	A	20 October	-	26 October
	4	B	27 October	-	2 November
	5	A	3 November	-	9 November
	6	B	10 November	-	16 November
	7	A	17 November	-	23 November
	8	B	24 November	-	30 November
	9	A	1 December	-	7 December