

# Science Technicians' Pay Equity Claim Report

Processes, evidence, and information for  
assessing pay inequity for science technicians  
in schools

**DECEMBER 2022**  
**VERSION 1.0**





# Contents

<b>Executive Summary .....</b>	<b>3</b>
<b>Introduction .....</b>	<b>5</b>
Background of the claim .....	5
Background of the claimant .....	5
Purpose of this report .....	6
The process used to assess the claim and inform parties' views of undervaluation.....	6
Steps used to assess the claim .....	7
<b>Scope and arguability of the Science Technicians' Pay Equity Claim .....</b>	<b>8</b>
Scope of the SPEC .....	8
Arguability of the SPEC.....	8
<b>Investigation of the science technician role .....</b>	<b>10</b>
Data collection methodology .....	10
The claimant sample.....	10
Key components of the interview process .....	11
Interview findings: General Areas of Responsibility (GAR) .....	12
Other relevant interview findings .....	14
<b>Selection and investigation of potential comparator roles .....</b>	<b>16</b>
Criteria for selection .....	16
Method for selection .....	17
List of potential comparator roles .....	17
Data collection process for comparator roles .....	18



<b>Factor Scoring</b> .....	<b>20</b>
Overview of the factor scoring tool and preparation .....	20
Overview of the factor scoring panel process .....	20
Science technicians work assessment .....	21
Rationale for the proposed matrix.....	24
Overview of potential comparator roles.....	24
Comparison of work and factor scores .....	31
<b>Assessment of contract terms, remuneration and funding settings</b> .....	<b>32</b>
Science technicians' funding settings .....	32
Science technicians' remuneration settings.....	32
Remuneration over time.....	34
Science technicians' employment agreements.....	35
Comparator Remuneration Settings.....	36
<b>Conclusion</b> .....	<b>37</b>
<b>Appendices</b> .....	<b>1</b>
Appendix 1: SPEC Terms of Reference .....	1
Appendix 2: General Areas of Responsibility.....	1



## Executive Summary

In November 2020, the New Zealand Education Institute Te Riu Roa (NZEI Te Riu Roa) raised a pay equity claim under the Equal Pay Act 1972 (the Act) with Te Tumu Whakarae mō te Mātauranga | the Secretary for Education (the Secretary) on behalf of science technicians in state and state-integrated schools and kura. The claim states that the work of science technicians is undervalued because the workforce is currently and historically mostly women.

The science technicians claim was investigated in partnership by NZEI Te Riu Roa and Te Tāhuhu o Te Mātauranga | the Ministry of Education (the Ministry). The parties have undertaken a thorough, collaborative and quality assured process to ensure that the outcome is robust, transparent, equitable and based on the evidence presented in this report.

According to internal payroll data from 2021, 90 percent of school science technicians are female.<sup>1</sup> Science technicians work in a range of settings, including primary, intermediate, secondary and area schools and kura. Just under half of the science technician workforce are employed under the Support Staff in Schools' Collective Agreement (SSSCA). The remainder of the workforce are employed on individual agreements, often mirroring the terms of a collective agreement.<sup>2</sup>

As outlined in the terms of reference, the parties agreed to progress the claim in good faith and in accordance with the Equal Pay Act. The terms of reference also acknowledged the long history of the Act, including the 2018 Reconvened Joint Working Group's (RJWG) Pay Equity Principles (the Principles). The Principles help to guide parties to progress the claim in accordance with the Act.

To complete the work assessment, the parties agreed to use the gender-neutral Pay Equity Aromatawai Mahi (PEAM) factor-scoring tool and the corresponding interview guide as the method for factor-based data collection and assessment. The 14 PEAM factors describe essential aspects of work, including skills, responsibilities, and the conditions and demands placed upon someone carrying out the work. This was key to uncovering aspects of work that are often overlooked or undervalued.

Between October 2021 and February 2022, 26 interviews were carried out with a randomly selected sample of science technicians working in schools and kura that was representative of national school demographics. The interview transcripts were analysed, and the key areas of responsibility and associated tasks and activities identified (the General Areas of Responsibility). The analysis was sent out to all schools and kura in March 2022 to ensure that the full range of the work had been captured. Due to the 73 pieces of feedback we received through the consultation, a further two interviews were carried out to complete the study of the claimant work.

The parties then identified potential male-dominated comparators and investigated their work. Due to difficulty in finding new comparators to participate, parties agreed to predominately use existing comparator data from previously settled claims alongside one new comparator

<sup>1</sup> Ministry of Education. 2022. *Workforce data 1 Science Technicians and Librarians Jan - Dec 2021*. Gender3 tab.

<sup>2</sup> Ministry of Education. 2022. *Workforce data 3 Science Technicians and Librarians Jan - Dec 2021*. Contract tab.



group which was cadastral surveyors. The parties would like to thank the organisations and employees involved for their participation and commitment to pay equity.

The next stage in the process was factor scoring the claimant and comparator transcripts. The factor scoring process was undertaken as a joint exercise by the Ministry and NZEI Te Riu Roa using the PEAM tool to ensure alignment with section 13ZD of the Equal Pay Act.

Through the factor-scoring process, parties found that the range of work performed by school science technicians fell into three distinct levels. It followed that a variety of new and existing comparators, including previously settled claimants, were potentially comparable at each of the three levels. A thorough analysis of the remuneration factors and the terms and conditions of claimants and potential comparators at each level revealed an undervaluation of claimant work. This evidence provides a good starting point for understanding the scale of the undervaluation and for a basis to consider how solutions may be developed.



# Introduction

## Background of the claim

In November 2020, NZEI Te Riu Roa raised a pay equity claim under the Act with the Secretary on behalf of science technicians and those doing the same or similar work in state and state-integrated schools and kura.

The claim states that the work of science technicians is historically and currently undervalued as it is performed predominantly by women. It is therefore possible that some aspects of the skills, knowledge and degrees of effort needed to carry out the work are less visible, and so not always recognised and equitably remunerated.

On 17 February 2021, the Ministry agreed that the claim was arguable and then on 8 October 2021, NZEI Te Riu Roa, New Zealand School Trustees Association (NZSTA) and the Ministry signed the terms of reference for the Science Technicians' Pay Equity Claim (SPEC). This initiated the start of enquiry into the claim to determine whether the female-dominated science technician workforce within schools and kura is subject to undervaluation on the basis of sex.

In the terms of reference, the three parties agreed to progress with the claim while acting in good faith and in accordance with the Act. The terms of reference also acknowledged the long history of the Act, particularly the RJWG's Principles.<sup>3</sup>

## Background of the claimant

In 2021, there were 319 science technicians employed in New Zealand state and state-integrated primary, intermediate, secondary and area schools and kura of whom 90 percent were female.<sup>4</sup> According to Education Payroll data (Jan-Dec 2021), 88 percent of science technicians are employed on a permanent basis, and 92 percent work less than 36 hours per week. Data also showed that 22 percent of science technicians held another role in the same school, such as in administrative services, other technician or trade services, or as a teacher aide.<sup>5</sup>

The research undertaken as part of the claim process assessment showed us that school science technicians complete a diverse range of tasks to support the effective and efficient delivery of the science curriculum, including equipment and solution preparation, equipment repairs, sourcing of resources and stock taking. They also create and maintain a range of science resources for current and future use within schools and kura. School science technicians facilitate student learning by bringing practical and technical knowledge and skills to the schooling sector. They work closely with teaching staff in a supportive and in some cases advisory capacity, including during class demonstrations, experiments, and assessments.

<sup>3</sup> The RJWG Principles are available here: [Pay-Equity-Context-and-Principles.pdf \(publicservice.govt.nz\)](https://publicservice.govt.nz/pay-equity-context-and-principles.pdf)

<sup>4</sup> Ministry of Education. 2022. *Workforce data 1 Science Technicians and Librarians Jan - Dec 2021*. Gender3 tab.

<sup>5</sup> Ministry of Education. 2022. *LPEC and SPEC data on concurrent roles and historical gender*. Q3, Q5-other jobs tab.



Science technicians also help to mitigate risks within school laboratories and improve the overall health and safety of students and staff during science activities.<sup>6</sup>

## Purpose of this report

The report sets out the process used to investigate and assess the SPEC, and the evidence and information gathered throughout that process.

The evidence reported here is primarily drawn from the interviews of claimants and comparator roles, and the subsequent analysis of the evidence, including the final process of assessing the evidence through factor scoring and comparison.

To proceed to bargaining and settlement of the SPEC, parties will draw on this report, along with the body of evidence gathered, analysis of remuneration and terms and conditions from collective agreements, data from the claimant and comparator organisations, and historical information about the development of these roles to determine where pay inequities on the basis of sex exist, and how these should be addressed.

## The process used to assess the claim and inform parties' views of undervaluation

Te Kawa Mataaho | Public Service Commission (the Commission) developed a process for addressing pay equity claims, underpinned by the Act (Figure 1). The parties agreed to use this process to determine any undervaluation of the claimant, as outlined in the terms of reference.

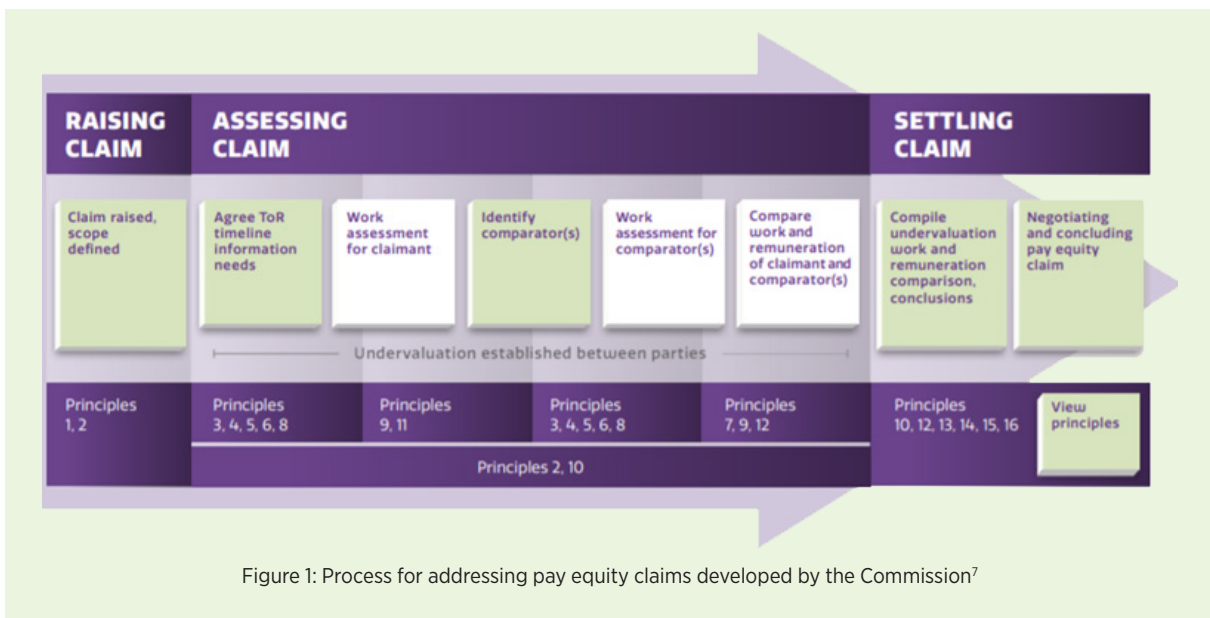


Figure 1: Process for addressing pay equity claims developed by the Commission<sup>7</sup>

The parties wish to acknowledge the work of NZEI Te Riu Roa members in moving this work forward. At various stages of the process, they have volunteered their time as interviewers

<sup>6</sup> Ministry of Education 2022, Science Technicians' Pay Equity Claim, General Areas of Responsibility

<sup>7</sup> Public Service Commission, *Pay Equity in New Zealand Context and Principles* (2020). <https://www.publicservice.govt.nz/system/public-service-people/pay-gaps-and-pay-equity/pay-equity/#Understanding-process>

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of claimants and comparators and their knowledge about the roles of science technicians in schools and kura to ensure we have a full picture and clear understanding of the work that is done.

Prior to commencing the assessment phase of the claim, background research was gathered to help understand the range of roles and scope of the claim. This included reviewing relevant position descriptions and information from collective agreements.

A summary of the key steps that were undertaken in the assessment phase of the SPEC is listed below and will be further discussed throughout this report.

## Steps used to assess the claim

### Work assessment for the claimant:

- a. Interviews were conducted with a portion of the claimant group, from a random representative sample of schools, to understand their responsibilities, experience, tasks, skills, degrees of effort required and the conditions of work.
- b. Interview transcripts were analysed to identify the range of responsibilities and activities performed by interviewees.
- c. The findings from this analysis (the General Areas of Responsibility/GAR document) were shared with all schools and kura via an online survey to ensure the range of work was covered.
- d. As a result of this survey, gaps in the initial interview data were identified through feedback from schools and kura and an additional two interviews were conducted.

### Work assessment for comparators:

Parties identified and selected potential comparator roles through agreed criteria, underpinned by the Act. Parties collected interview data of an appropriate range of potential comparator roles to understand the responsibilities, experience, tasks, skills, degrees of effort required and the conditions of work.

### Compare work of claimant and comparators:

Comparison of the skills, responsibilities, efforts and working conditions of the claimant and comparators' work was undertaken using a gender-neutral work assessment tool.

### Compare remuneration of claimant and comparators:

Comparison of the claimants' and comparators' remuneration, terms, and conditions was undertaken primarily through the review of collective agreements and payroll data.





# Scope and arguability of the Science Technicians' Pay Equity Claim

## Scope of the SPEC

The claim was raised for union members and non-union employees who are employed as science technicians and those doing the same or substantially similar work in state and state-integrated schools and kura.

In 2021, there were 319 science technician roles identified in the Education Payroll Limited payroll system. These roles exist in a range of settings: primary, intermediate, secondary and area schools and kura, as well as within English-medium and mixed-medium schools.<sup>8</sup>

School science technicians are covered under the Support Staff in Schools' Collective Agreement (SSSCA). In 2021, approximately 135, or alternatively 42 percent of school science technicians were employed under this collective.<sup>9</sup> The majority of this workforce were employed under individual employment agreements which often mirror the terms of the collective agreement.

NZEI Te Riu Roa is the union that represents this workforce and the Secretary is the delegated employer for the purpose of responding to this pay equity claim.<sup>10</sup>

## Arguability of the SPEC

In February 2021, the SPEC was formally confirmed by the Secretary with NZEI Te Riu Roa in accordance with the Act.

The combination of the following factors met the threshold to be determined to be arguable and meant the assessment phase of the claim could begin:

- a. A consistently female-dominated workforce.
- b. The characterisation of science technician work as women's work.

Some aspects of science technicians and their work – that made this pay equity claim arguable – are explained in further detail below.

The workforce has been and continues to be predominantly women. During 2021, Ministry of Education workforce data showed that 90 percent of school science technicians were female.<sup>11</sup> A survey from 2007 also found that from their sample of 143 school science technicians, there was 92 percent female dominance.<sup>12</sup>

<sup>8</sup> Ministry of Education. 2022. *Workforce data 1 Science Technicians and Librarians Jan – Dec 2021*. Gender3 tab.

<sup>9</sup> Ministry of Education. 2022. *Workforce data 3 Science Technicians and Librarians Jan-Dec 2021*. Contract tab.

<sup>10</sup> Equal Pay Act. 1972. s13ZZG The Public Service Commissioner is treated as the employer for education service claims but has delegated these functions and powers to the Secretary for Education.

<sup>11</sup> Ministry of Education. 2022. *Workforce data 1 Science Technicians and Librarians Jan – Dec 2021*. Gender3 tab.

<sup>12</sup> De Stigter, I (2020). *Valuing School Science Technicians*, Science Technicians Association of New Zealand.



Historically, female science technicians have received little recognition for their contribution to scientific knowledge and discovery.<sup>13</sup> Women were viewed as employees in the traditional role of a mother or a wife, usually hired into technician roles based on typical 'feminine' skills such as gardening, household budgeting, food preparation and preservation, and the purchasing and storage of stock. The extension of these unpaid domestic duties into the paid workforce meant that the status, promotion opportunities and remuneration of science technicians remained low.<sup>14</sup>

During the 1960s, school laboratory assistants were hired to assist and support the role of science teachers through routine preparations and maintenance, to allow science teachers to capitalise on their specialised training and knowledge.<sup>15</sup> The laboratory assistants carried out work linked to traditionally perceived maternal duties such as caring for live specimens, ensuring the classroom remains tidy, and procuring, storing and cleaning equipment. As a result, school science technician work was constructed as a low-skilled occupation and characterised as women's work.<sup>16</sup>

In 1987, the Education Service Paraprofessional Association (ESPA) found that as laboratory assistants became a more established position in secondary schools, the role started to advance from its initial purpose of routine preparation to a more specialised position with greater abilities in chemical preparation, suitable curriculum purchases and the preparation of materials.<sup>17</sup> As support workers in schools and kura, science technicians also became responsible for keeping children safe and healthy in a laboratory setting, as well as supporting and contributing to their education. Notably, caring for and supporting the learning needs of children has traditionally and historically been performed by women, thus increasing the perception of school science technician work as women's work.

A New Zealand workforce survey conducted in 2007 and again in 2017, showed that many school science technicians are women with science qualifications returning to the workforce after having children, possibly attracted to school working hours and holidays, but needing to compromise on lower pay and limited hours compared to the wider science technician industry.<sup>18</sup>

As a result, it is likely that the perception of school science technician work as women's work has led to a persisting societal undervaluation and recognition within the workforce.

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13 Hartley, J. M. & Tansey, E. M. (2015). White coats and no trousers: narrating the experiences of women technicians in medical laboratories, 1930-90. *Notes and records of the Royal Society of London*, 69 (1) 25-36. doi:10.1098/rsnr.2014.0058

14 Anker, R., Melkas, H. and Korten, A. *Gender-based occupational segregation in the 1990's*. International Labour Office, 2003 Retrieved from: [Gender-based occupational segregation in the 1990's \(ilo.org\)](https://www.ilo.org/gender-based-occupational-segregation-in-the-1990s) p.21

15 (22 June 1963). Education Committee, *Teachers-Ancillary Staff* (File: Non-Teaching-Ancillary Staff in Secondary Schools-1961-1966) Archives, NZ.

16 De Stigter, I. (September 2007). *NZ School Science Technicians Work Force Survey: Background paper for the Professional School Science Technician in 2017*. Science Technicians Association of New Zealand.

17 (1987) Education Service Paraprofessional Association (ESPA). *Common Maximum Step on Proposed Uniform Salary Scale* (File: Personnel-Industrial Relations-Teaching and Nonteaching Groups-Ancillary Assistants-applications for Review of Remuneration and Conditions of Employment-1986-1987). Archives, NZ

18 De Stigter, I (2020). *Valuing School Science Technicians*. Science Technicians Association of New Zealand.



# Investigation of the science technician role

## Data collection methodology

Factor-based analysis was used to provide a structured approach to the work investigation. This involves breaking the work into its constituent parts, referred to in pay equity as 'factors'. The factors describe elements of what the work entails including the skills used, responsibilities undertaken, experience required and the conditions and demands for someone who is carrying out the work. This is key to uncovering the less visible aspects of the work that are often overlooked, hidden, or undervalued and ensuring that they are included in the assessment.

The parties agreed on the Pay Equity Aromatawai Mahi (PEAM) tool as the method for primary data collection. The PEAM tool was jointly developed by NZEI Te Rui Roa and the Ministry in 2018 and has been endorsed as gender neutral by the Commission. It has also been used successfully in settling the Teacher Aide Pay Equity Claim (TAPEC), Administrative Support Staff Pay Equity Claim (APEC), and the Kaiārahi i te reo Pay Equity Claim (KPEC).

The tool comprises a gender-neutral questionnaire which is used to guide an interview process designed to capture the skills, responsibilities, experience, degree of effort and the conditions of work and a factor plan which analyses the information gathered and helps compare the work of claimants and comparators.

The same questionnaire is used throughout the interview process with both claimants and comparators to ensure consistency of data collection.

Interviews were carried out with individual employees and their direct supervisors.

## The claimant sample

Parties agreed to an initial sample of 25 claimant interviews. The sample was stratified to ensure accurate reflection and sufficient demographic representation of the schools that employ science technicians. Once the stratifiers were implemented, the sample was drawn from randomly selected schools.

Regular checkpoints were established to review the parties' satisfaction with the quality and quantity of the data collected. It was agreed that one additional targeted interview would be conducted to sufficiently cover all school demographics and ensure adequate information collection and data saturation.

The initial process commenced in October 2021 and concluded in February 2022 with a total of 26 individual employee interviews plus interviews with each of their direct supervisors. All employees in the claimant sample had to meet the criteria that they were employed for at least five hours per week and had worked at the school/kura for at least three terms to ensure they could provide the required level of detail.



## Key components of the interview process

The interview process incorporated the following elements:

- a. Interviewer refresher training day
  - ii. This was attended by team members from both the Ministry and NZEI Te Riu Roa, during which interviewers were trained in the pay equity process, the use of the PEAM tool, and interview best practice. The training day was facilitated by both the Ministry and NZEI Te Riu Roa in partnership on 19 October 2021.
  - iii. Attendees used discussion and role play of interview scenarios to develop interviewer skills of enquiry, probing, avoidance of leading questions and the elicitation of examples to reveal the less visible skills often undervalued in female-dominated work. Tips were also given to the interview teams to create an environment during the interviews where the interviewees could discuss their work comfortably, in a clear and comprehensive way.
  - iv. The training mitigated the risk of personal bias affecting the data-gathering process through a dedicated workshop on unconscious bias and ways to maintain data objectivity.
  - v. Due to the parties' agreement not to record interviews, workshops emphasised the importance of preserving the wording of the respondent rather than summarising interview content by providing clear guidelines to interviewers and conducting scribing practice during the training day.
  - vi. Attendees developed an understanding of the ethical considerations, including the confidential nature of interview content, importance of anonymising interview transcripts by removing names, locations and any identifying elements, and gaining informed consent by talking through the consent form with interviewees and explaining how their data will be used.
  - vii. Interviewers signed confidentiality forms.
- b. Interview protocol
  - i. Interviews were conducted in interviewer/scribe pairs consisting of one Ministry analyst and one NZEI Te Riu Roa member. This helped to mitigate institutional bias and to continue the collaborative nature of the work.
  - ii. Interviews were approximately an hour and a half in length with the employee and approximately half an hour with their direct supervisor, allowing sufficient time for full and detailed answers.
  - iii. In-person interviews were preferred, but the team was agile with conducting interviews over digital platforms if needed. This was especially relevant as this process was running during the fluctuating alert levels of the COVID-19 pandemic.
  - iv. Interviews were conducted in either te reo Māori or English based on the preference of the interviewee and were transcribed during the interview rather than recorded.
  - v. Employees and supervisors signed interview consent forms.



- c. Interview outputs and data validation
  - i. The output of each interview was a transcript, the content of which was agreed by both interview partners consisting of one Ministry analyst and one NZEI Te Riu Roa member.
  - ii. A quality assurance (QA) process was used in which both a Ministry and NZEI Te Riu Roa representative who were not present in the interview reviewed each transcript to ensure all sections of the interview guide were covered, any points that needed to be clarified were identified and that there was consistency between the interviews.
  - iii. Interviewees received the transcript of the interview to review and verify as a true record of what was said and to answer any additional questions brought up in the QA process.

### Interview findings: General Areas of Responsibility (GAR)

In accordance with Section 13ZD of the Act, the work of the claimant must be thoroughly assessed. To ensure we fully captured the work of science technicians, the Ministry, in collaboration with NZEI Te Riu Roa, analysed the 52 interview transcripts (26 employees and 26 supervisors). This summary and analysis of the work documents in the transcripts formed the general areas of responsibility (GAR).

The GAR were agreed between the parties and shared with schools and kura via an online survey over March and April 2022. The GAR was also sent to the Science Technicians Association of New Zealand (STANZ) President to be circulated across their network of members. The survey allowed school principals, direct supervisors and/or science technicians themselves to check that the work was fully covered or if there was something missed. This feedback helped ensure the interview sample was representative, and the range of work was fully captured and included in the claim. Approximately 73 individuals provided feedback via email and online submissions. The feedback was analysed and some gaps in the data identified. To address these gaps, two further interviews were completed, and the GAR document updated to reflect the additional findings.

The GAR below reflect the range and variety of responsibilities and activities that school science technicians do. No individual science technician role is expected to carry out every activity identified, but all school science technicians should see the responsibilities of their role reflected in one or more of the general areas of responsibilities identified. The full GAR document can be found in Appendix 2. A summary of the 10 general areas of responsibility is as follows:

1. **Facilitating science curriculum delivery:** Science technicians prepare the necessary safety and instruction information, resources, chemicals, equipment and apparatus for experiments and practical activities. They may assist the class teacher to conduct demonstrations and experiments or support practical activities during class. Science technicians contribute to the creation and trialling of practical activities and write or adapt the documentation of practical activities for future reference. Science technicians use software such as RiskAssess and paper-based scheduling systems to determine the resource and equipment demands for each class, as well as the risk management

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of those planned activities. They engage with departmental staff in both a supportive and advisory capacity. Their role spans from supporting with general administration to assisting teachers with their class planning, supervision and assessment of students.

- 2. Managing and distributing science resources and equipment:** Science technicians are solely responsible for securely storing material resources, chemicals and equipment for classroom use. These may include dissection material such as eyeballs and plucks through to specialised science apparatus including water baths and hydroponic kits. They ensure chemical resources and equipment are labelled with concentrations and safety data as well as instructions for use. Science technicians create and maintain a range of resources and equipment for current and future use, including PH probes, conductivity meters, refractometers, microscopes, multimeters, oscilloscopes, Van de Graaf generators and spectrometers. They research and undertake repairs during work time and when at home or will source and organise external companies to conduct repairs. Science technicians also loan and share physical department resources internally and externally, including to other departments within the school, other local schools and community groups.
- 3. Procuring resources and conducting financial administration for the science department:** Science technicians are responsible for obtaining resources, chemicals and equipment for classroom use. They will spend time researching and securing the best deals to benefit the departmental budget, often using connections and relationships to source and receive new resources and spare parts. Science technicians assist with the financial operation of the science department, often utilising financial management systems such as Xero, Excel, Hubdoc or a paper-based model to deliver a departmental budget overview and provide expenditure reports.
- 4. Managing science department and school health and safety procedures:** Science technicians are required to have an in-depth knowledge and understanding of health and safety policies, procedures and practices including the Code of Practice, Globally Harmonised System, Safe Methods of Use and Safety Data Sheets as well as any relevant New Zealand legislation, such as Safety and Science/Pūtaiao and Hazardous Substances 2017 Act. Science technicians often have a great degree of responsibility within schools to uphold the safety of students and staff by sharing expertise, contributing to the development of safer operations and ensuring all existing measures are followed.
- 5. Developing, maintaining and sharing relevant knowledge and experience:** Science technicians cultivate and hone their skills and expertise to support the effective functioning of the science department. This is done through internal or external professional development, training, workshops and conferences on topics such as software, equipment repair and health and safety or by expanding their knowledge independently through self-directed learning and research, keeping up to date with curriculum changes to support the implementation and delivery of assessments and experiments. Science technicians often develop the knowledge of others by assisting, training and sharing their knowledge with both colleagues and associates in external networks using a variety of strategies.
- 6. Building relationships and communicating with students, colleagues, agencies and the community:** Science technicians play a role in building relationships internally

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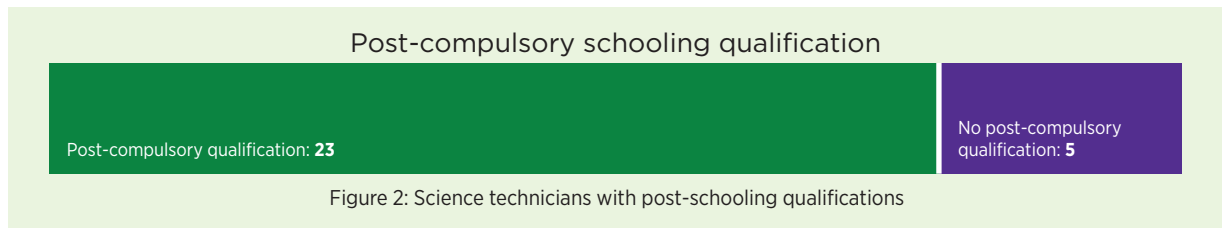
and externally for the school. They build and maintain strong relationships with both students and colleagues and assist in connecting the school to the wider community. They adjust their communication style to suit the party they're speaking to by adding or removing technical jargon when needed and maintaining close working relationships with suppliers.

7. **Enhancing students' participation and engagement in learning:** Science technicians use a variety of methods to enable students to participate in science and ensure the wider school learning environment is accessible for all learners. They often assist students in and out of class with their projects including the science fair and take a role in removing barriers that might prevent students from participating in the learning. Science technicians enable student engagement and ensure the success of students while working in the laboratory.
8. **Maintaining and contributing to the development of buildings and grounds:** Science technicians provide input and advice into the development of new or existing buildings on school grounds. They ensure property issues and maintenance needs are reported to the necessary people. Science technicians ensure science department buildings are secured when required and prevent stray animals such as dogs, cats, and chickens from freely roaming school grounds.
9. **Being aware of and supporting bi- and multi-cultural practices:** Science technicians have an important role in creating a school environment that supports and respects the varied cultures of both students and staff. Science technicians contribute to the schools bi- and multi-cultural practices in many different ways, ranging from assisting in cultural events and providing information bilingually to educating fellow staff on what may be culturally appropriate. Science technicians work in a range of settings including bilingual and English-medium schools.
10. **Contributing to the effective functioning of the school:** Science technicians provide a range of support to schools beyond their core department-focused work, helping to keep the school running smoothly and successfully, while also adhering to the school's values and the various policies and practices in place. These tasks support numerous elements of the school's operation, from departmental matters through to wider school staff and students.

## Other relevant interview findings

In addition to the above GAR, the interviews uncovered additional information related to working conditions and demands, professional development, attainment of qualifications and induction and training delivery. Below are some noteworthy findings from the interviewed sample of 28 school science technicians.

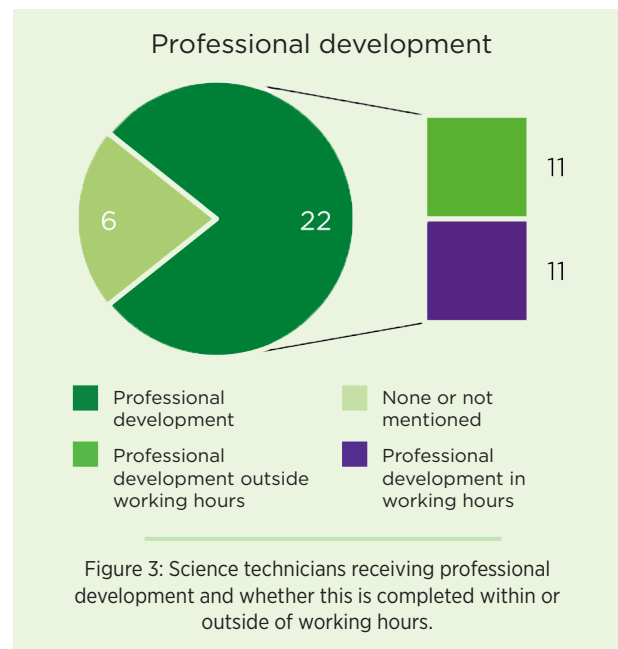
**Post-compulsory qualification:** Within the sample, 23 out of 28 (82 percent) mentioned that they held post-compulsory qualification(s), and 22 out of the 23 (96 percent) mentioned this qualification was used in their role. The qualification types mentioned included certificates, diplomas, bachelors, masters, and PhDs and covered a wide range of subjects including but not limited to nursing, psychology, science, laboratory management and zoology.



**Induction:** Eight out of 28 (29 percent) of the sample explicitly mentioned receiving an induction, which varied in duration and length. From those eight employees who received an induction, six (75 percent) described it as shadowing the outgoing science technicians or using information which they had provided. The interviewees who did not have an induction discussed having to ‘learn on the job’ and leverage from previous experience in similar roles.

**Professional development:** Within the sample, 22 out of 28 (79 percent) had received some form of professional development, which varied in formality and structure. Of these 22 employees, 11 (50 percent) mentioned attending the biennial Science Technicians Association New Zealand (STANZ) conference. Other professional development mentioned within the sample included training courses in first aid, health and safety, te reo Māori, Te Tiriti o Waitangi, fire extinguisher use, and microscope repair as well those towards a laboratory technician diploma. Some interviewees also attended informal meetings with local and regional clusters of science technicians.

Eleven out of the 22 interviewees (50 percent) who had received some form of professional development mentioned that this was done outside of their normal working hours. Four (36 percent) of those who had done professional development outside of working hours mentioned that they were not compensated for their time.



**Additional hours:** Within the sample, 17 out of 28 (61 percent) said they worked on top of their normal hours. Of these 17 employees, nine (53 percent) mentioned either applying or having the possibility to apply for compensation for their overtime (for example, through time off in lieu).

**Personal vehicles & mileage:** Twenty-four out of 28 (86 percent) of interviewees said that they needed to use their personal vehicle for work to purchase equipment or pick up resources. Of these, 11 (46 percent) mentioned that they were either reimbursed for mileage or that it was possible to claim reimbursement.

**Working conditions:** 28 out of 28 (100 percent) of interviewees mentioned working with hazardous substances in their role, with 11 (39 percent) expressing concerns about inadequate ventilation, particularly in chemical storage areas. 12 out of 28 (43 percent) within the sample also mentioned working in a confined or awkward space, including small or inadequate preparation and storage spaces, lack of natural light and heating, and ergonomically poor work stations.

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# Selection and investigation of potential comparator roles

## Criteria for selection

To select an appropriate range of comparator roles, the Ministry and NZEI Te Riu Roa agreed on a set of criteria to apply. This was developed by reviewing the comparator selection criteria for the APEC and refreshing it to suit SPEC and the concurrent Librarian and Library Assistants' Pay Equity Claim (LPEC).

Section 13ZE of the Equal Pay Act specifies the factors for identifying appropriate comparators as:

- » work performed by male comparators that is the same as, or substantially similar to, the work to which the claim relates
- » work performed by male comparators that is different to the work to which the claim relates, if the *skills and experience, responsibilities, working conditions, and/or degrees of effort* are the same as, or substantially similar to, those of the claimant
- » work performed by any other comparators that the parties consider useful or relevant, including comparators that have been the subject of a pay equity settlement.

As well as consistency with the Act, NZEI Te Riu Roa and the Ministry agreed that the comparator occupations must be:

- » male dominated (or a settled female-dominated claimant occupation)
- » employed (not self-employed)
- » of a substantial workforce size (as a preference)
- » Accessible (collective agreement preferable)
- » New Zealand based
- » not significantly impacted by COVID-19 (avoid workforces that are essential to New Zealand's COVID-19 response, or that are experiencing job losses due to redundancy or vaccine mandates)
- » not currently or recently involved in an industrial dispute.

A set of underlying principles to guide our processes for selecting and agreeing comparators was also agreed:

- » Wherever possible, we should aim to use data from existing claims processes, including but not limited to the TAPEC, APEC and KPEC, and other repository data. Consideration will be given to the burden on participating comparator organisations where additional data may be needed and to the age of data.
- » New comparators should be considered.

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- » Parties should make best efforts towards achieving consensus.
- » Divergent views are acceptable and should be captured including documentation of pathway forward.

## Method for selection

The process used to select potential comparators began with the Australia and New Zealand Standard Classification of Occupations (ANZSCO) occupational list which provided a full list of occupations found in New Zealand. Using a combination of census data and individual role research, we narrowed down the list, filtering for the criteria and principles outlined above.

The resulting shortlist included a range of occupations across the ANZSCO defined levels, whilst acknowledging that they may not provide a precise indication of the level an occupation works at in terms of skills, experience, responsibilities, demands and working conditions and in particular, the less visible skills recognised through gender neutral work assessment. Back up options for each preferred potential comparator occupation were also chosen in case the preferred comparator did not agree to participate. The final list also included existing comparator data gathered during previous pay equity claims to be used if appropriate. This ensured that the full range of work found in the claimant investigation would be covered.

## List of potential comparator roles

Potential comparator roles from the agreed shortlist were contacted and invited to participate in the claim. Due to a range of factors, including COVID-19, most of the comparators we approached declined to participate. One new potential comparator role, cadastral surveyor, participated in interviews.

Table 1: Potential SPEC new comparator and rationale

Role	Organisation	Rationale
Cadastral surveyor	Government	91% male dominance. <sup>19</sup> Collective agreement in place

## Re-use of settled claims data

The Ministry and NZEI Te Riu Roa agreed to re-use existing comparator data from the APEC, KPEC and TAPEC, as well as the claimant data from these settled pay equity claims.

As part of the investigation of these claims, the parties interviewed a range of male-dominated comparator roles listed in Table 2. These interview transcripts went through the PEAM factor-scoring process. Both work and remuneration comparisons were drawn and agreed between the parties.

As a result of the settled TAPEC, APEC and KPEC, the claimant groups' remuneration was corrected and could be used as a comparator for future claims in accordance with the criteria stated in the Act.

Therefore, the following data from previous claims was agreed as potentially useful comparators for science technicians, as the roles are either still male dominated, or part of a

<sup>19</sup> Census data 2018



settled pay equity claim and were seen as potentially able to contribute to providing good coverage of the range of work in the SPEC.

Table 2: Previous claim data for possible re-use

Role	Organisation	Rationale
Fishery and senior fishery officer	Ministry for Primary Industries (MPI)	78% male dominance. Also used for the settled APEC and KPEC
Parking compliance officer	Local government	79% male dominance. Also used for the settled APEC and KPEC
Corrections officer	Department of Corrections	74% male dominance. Also used for the settled TAPEC, APEC and KPEC
Customs officer	New Zealand Customs Service	52% male dominance. Also used for the settled TAPEC, APEC and KPEC
Teacher aide	Ministry of Education	Settled pay equity claim (TAPEC) with undervaluation corrected
Administration support staff	Ministry of Education	Settled pay equity claim (APEC) with undervaluation corrected

### Data collection process for comparator roles

In June 2022, interviews commenced with cadastral surveyors. The full interview process and outputs mirrored that of the claimant interviews (outlined in previous section of this report). This was fundamental in assuring fair and consistent comparisons during the factor-scoring assessment process.

An online comparator interviewer training session was completed in April 2022 by all interview team members, focussing on the same aspects of the process that were addressed prior to claimant interviews, including:

- a. the pay equity process, use of the PEAM tool, and interview best practice
- b. interviewer skills of enquiry, probing, avoiding leading questions and eliciting examples to reveal less visible skills often undervalued in female-dominated work
- c. creating an environment during the interviews where the interviewees could discuss their work comfortably, in a clear and detailed way
- d. Mitigating the risk of personal bias affecting the data-gathering process through a dedicated workshop on unconscious bias and ways to maintain data objectivity.
- e. The importance of preserving the wording of the respondent rather than summarising interview content was embedded through providing clear guidelines to interviewers and conducting scribing practice during the training day.
- f. The confidential nature of interview content, importance of anonymising interview transcripts by removing names, locations and any identifying elements, and gaining informed consent by talking through the consent form with interviewees and explaining how their data will be used.



The training day included some lessons learned throughout the claimant interview process from experienced interviewers.

Eight comparator employees were interviewed in total, along with their supervisors:

**Cadastral Surveyors: 8**

**Supervisors: 2**



# Factor Scoring

## Overview of the factor scoring tool and preparation

The PEAM factor-scoring tool consists of 14 factors which describe the constituent elements that the work entails including the skills used, responsibilities undertaken and the conditions and demands placed on someone who is carrying out the work, in line with the question guide used in the claimant and comparator interviews. The below list outlines the 14 factors the PEAM tool addresses:

1. Knowledge Skills
2. Planning and Organising Skills
3. Problem Solving skills
4. Interpersonal and Communication Skills
5. Bi- and Multi-Cultural Skills
6. Physical Skills
7. Responsibility for People Leadership
8. Responsibility for Resources
9. Responsibility for Organisational Outcomes
10. Responsibility for Services to People
11. Emotional Demands
12. Sensory Demands
13. Physical Demands
14. Working Conditions.

To ensure the tool was fit for purpose, the parties updated the additional guidance which goes alongside the PEAM factors to provide support and clarification in the context of this specific claim.

In preparation for the factor scoring, attendees took part in an interest-based problem-solving workshop in which the professional interests of both parties were identified, and common goals highlighted. The session provided a model for constructive negotiation and consensus decision making which is crucial to the process. The assessment panel then practised factor scoring a job description unrelated to the claim to solidify the negotiation skills covered during the workshop.

## Overview of the factor scoring panel process

From the 28 science technicians interviewed, the parties jointly selected 10 benchmark roles that represented the range and variety of work performed by school science technicians.

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These transcripts went into the factor-scoring process alongside all eight cadastral surveyor comparator transcripts.

School science technician and comparator interview transcripts were factor scored in a series of panel discussions conducted over three weeks in July 2022. Two NZEI te Riu Roa representatives and two Ministry representatives (including one contracted job sizing and remuneration expert) were involved in the scoring process as well as a note taker to keep accurate records of the discussions.

The transcripts were assessed against the 14 factors in PEAM. Within each factor, the roles were assigned to a level, which aligned with a score. These scores were then tallied up, collated and analysed. The panel arrived at a consensus on the scores for each role. The same process was undertaken for claimants and comparators and the pre-scoring of transcripts occurred before panel discussions to avoid potential group think and bias that might naturally creep in.

The same process was undertaken when factor scoring comparators during previous claims (TAPEC, APEC and KPEC). For this reason, it was agreed between parties to use factor scores already assigned to existing comparators, without the need for the panel to reassess these transcripts. There was some consistency between the factor-scoring panel members for previous claims and the SPEC.

### Science technicians work assessment

Agreed PEAM scores for school science technicians ranged from 435 to 530 points. Transcripts also showed that some claimants were supervising assistants at a lower level of responsibility. While no interviews were conducted at this level, the parties recognised that the role existed and conducted further research resulting in agreement that the work aligned with a range of 300-360 PEAM points. Employees across the claimant sample scored similarly in the demands and working conditions PEAM factors, reflecting that, while there may be some superficial differences between the types of schools, there is a thread of commonality across most schooling contexts and environments. The demands and working conditions factors therefore have made little difference to the resulting scores. The skills and responsibility factors, however, spanned a range, across a variety of roles. The work assessment analysis revealed the position elements table and associated clauses in the Support Staff in Schools' Collective Agreement, were inaccurate.

A new 3-grade matrix for school science technicians has been proposed by the parties to reflect the skills and responsibilities of a range of roles and to ensure an accurate and transparent remuneration structure.

**This is a draft matrix only, pending review and confirmation by both parties.** One purpose of this matrix has been to provide the foundation for considering comparators and assessing the degree of undervaluation at each level in a more detailed way.

The table below sets out the most common skills and responsibilities that apply to science technician roles. To determine and assess which grade a science technician role sits within, the employer will need to consider which general description fits the role. They then assess the regular and ongoing skills, and responsibilities of the role, and ensure that the chosen grade recognises the highest level required for the role on a regular and ongoing basis, not things



that are a one-off or isolated events. Science technicians do not have to do every activity in a grade in order to be placed in a particular grade.

Table 3: New draft three-grade school science technician matrix

Grade	General description	Supervision and management	Level of necessary skills and knowledge	Problem solving	Interpersonal and communication skills
1	<ul style="list-style-type: none"> <li>» Hold responsibility for own work under general supervision</li> </ul>	<ul style="list-style-type: none"> <li>» No formal supervision or mentoring of others required</li> <li>» Monitor other people in the laboratory for health and safety compliance</li> </ul>	<ul style="list-style-type: none"> <li>» As directed, prepare resources, equipment and learning environment to meet teacher requirements including clearing away and counting equipment back in, safely disposing of waste, cleaning and storing science equipment and materials as required, and recognising and alerting supervisor when equipment is missing or in need of repair</li> <li>» Undertake general administration tasks for the science department</li> </ul>	<ul style="list-style-type: none"> <li>» Not expected to take a lead in problem solving</li> <li>» Use clear patterns and procedures to deal with clearly defined problems or escalate up to supervisor</li> </ul>	<ul style="list-style-type: none"> <li>» Communicate primarily on day-to-day issues and take instruction from supervisor</li> </ul>
2	<ul style="list-style-type: none"> <li>» Manage own work and day-to-day priorities under limited supervision</li> <li>» Often in a sole role and may manage several laboratories across the school</li> </ul>	<ul style="list-style-type: none"> <li>» Train teachers and students on laboratory practices, policies and procedures, including health and safety requirements</li> <li>» Has responsibility under limited supervision for all the science chemicals and hazardous substances at the school</li> <li>» Run or assist with risk assessments</li> </ul>	<ul style="list-style-type: none"> <li>» Run the scheduling and resource booking system ensuring teachers' requests are managed</li> <li>» Hold cultural knowledge related to sensitivities in science experiments</li> <li>» Has knowledge of the science curriculum and shares relevant knowledge with others including teachers</li> <li>» Set up and demonstrate experiments to classes. Support students with class activities or preparing for external exams</li> <li>» Maintain in-depth and up-to-date knowledge of health and safety procedures and practices. Share this knowledge with teachers and students to uphold safety requirements</li> </ul>	<ul style="list-style-type: none"> <li>» Role has the latitude to operate within existing policies and procedures and to identify when issues need to be escalated</li> <li>» Provide advice on new builds or rebuilds of the science block or laboratories</li> </ul>	<ul style="list-style-type: none"> <li>» Provide advice and information on appropriate classroom practical activities and experiments to colleagues and students to ensure compliance with health and safety policies</li> <li>» Provide feedback to teachers in cases where planned class activities are deemed unsuitable for the age group or not possible due to resource availability, safety issues or cost and time constraints</li> </ul>

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		<ul style="list-style-type: none"> <li>» Assist with induction of new staff including other science technicians or science teachers</li> <li>» Take part in extra-curricular activities with students</li> </ul>	<ul style="list-style-type: none"> <li>and operate all experiments and equipment safely</li> <li>» Develop, conduct, maintain and update inventory and chemical registries.</li> <li>» Operate specialist apparatus and/or machinery to support curriculum delivery</li> <li>» Research, create, build, recalibrate, repair and assemble resources such as chemicals and equipment</li> <li>» Procurement of resources</li> <li>» Keep abreast of new developments in science through professional learning and development (PLD) as well as own and collaborative research with professional organisations</li> </ul>		<ul style="list-style-type: none"> <li>» Liaise with staff about individual student needs</li> <li>» Produce bilingual labels and posters for science equipment and resources. At this level, includes respect for, and basic knowledge of, te reo Māori and tikanga and other cultures</li> <li>» Build and maintain relationships with resource and equipment suppliers</li> </ul>
3	<ul style="list-style-type: none"> <li>» Hold full responsibility for management of the laboratory or laboratories</li> </ul>	<ul style="list-style-type: none"> <li>» Manage other science technicians or laboratory assistants including hiring, training and delegating or determining tasks and day-to-day work</li> <li>» Hold the designated laboratory manager/ taiwhanga kaiwhakahaere health and safety title/role for the school</li> </ul>	<ul style="list-style-type: none"> <li>» Use knowledge of department needs and requirements to develop and manage budget accordingly to ensure adequate resources are available</li> <li>» Collaborate with teachers on lesson planning, curriculum delivery and designing student assessments</li> </ul>	<ul style="list-style-type: none"> <li>» Identify, authorise, and implement policy changes and use initiative to improve efficiency and effectiveness of the laboratory and its health and safety protocols</li> </ul>	<ul style="list-style-type: none"> <li>» Give expert advice to those in more senior positions on laboratory policies and practice</li> </ul>





## Rationale for the proposed matrix

Boundaries for the new three-grade matrix are based on the following rationale:

- » Grade 1: Boundaries of 300-360 and a grade average of 330. At this grade, science technicians hold responsibility for their own work under general supervision. The role of a laboratory assistant falls into this grade. Work undertaken in these roles is straightforward and routine in nature. While no sample transcripts were scored in this grade, this role was referenced in the transcripts of other claimants in the sample who supervised the work of assistants.
- » Grade 2: Boundaries of 430-490 and a grade average of 465. Science technicians in this grade manage their own work and day-to-day priorities under limited supervision. They are often in a sole role and may manage several laboratories across the school. The majority of the sample fell within this boundary with the higher scores of interviewees within this grade reflecting increased involvement with students and an increased frequency of interruptions and physical demands.
- » Grade 3: Boundaries of 491-530 and a grade average of 503. In this grade, the science technician holds full responsibility for management of the laboratory or laboratories. This represents an increase in skills and responsibilities, particularly in people leadership, long-term planning and the management and full responsibility of budgets. Interviewees placed in this grade were also found to have larger departments and were required to manage the competing demands of many teachers and services.

## Overview of potential comparator roles

The Ministry and NZEI Te Riu Roa agreed on 'profile' PEAM scores for the comparator occupations. Profile scores give a more robust view of the role than averages as this uses the most common level awarded to each of the factors scored and so limits the impact of outliers on the scores. This is useful for roles where there is one job description and one employer for the role. For teacher aides, administration support staff and kaiārahi i te reo, grade averages have been used as there is more of a range of roles which is important to capture here.

Table 4: Overview of comparator roles

<b>Cadastral surveyor/ senior survey advisor</b>	Range of PEAM scores: 498-617 Profile PEAM score: 521
<b>Role overview</b>	Cadastral surveyors set the standards for cadastral surveying of land and ensure compliance with these standards.  This includes assessing and validating datasets submitted by external surveyors, investigating errors, writing guidance material, and mentoring internal staff.
<b>Skills</b>	Cadastral surveyors need to hold a Bachelor of Surveying degree and maintain a professional license.  The role involves understanding and applying relevant legislation, regulations, and highly technical surveying knowledge. Surveyors are required to conduct research, make calculations, and interpret evidence when investigating technical issues.

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	They maintain relationships with internal staff through training and mentoring, and with external surveyors by providing advice and guidance. They are required to deliver at times unwelcome and complex information when discussing errors with external surveyors.
<b>Responsibilities</b>	<p>Cadastral surveyors are responsible for monitoring compliance in accordance with the Cadastral Survey Act 2002 and making decisions on behalf of the Surveyor-General.</p> <p>They train and assist internal staff in auditing submitted datasets and investigate ambiguities and anomalies.</p> <p>The role also involves writing technical guidance and providing expert surveying knowledge to external clients as needed.</p>
<b>Demands</b>	<p>The role involves prolonged concentration when working through a complex issue.</p> <p>Cadastral surveyors need to deal with frequent interruptions including phone calls, emails, and queries from internal staff.</p>
<b>Working conditions</b>	<p>The role is office based, with flexibility in working from home.</p> <p>Occasional travel may be required to attend conferences, meetings, or visit survey sites, however most of the role is office based.</p>

<b>Fishery officer/ senior fishery officer</b>	<p>Range of PEAM scores: 506-586</p> <p>Profile PEAM score: 523</p>
<b>Role overview</b>	<p>Fishery officers ensure commercial, recreational, and customary groups are compliant with the Fisheries Act 1996.</p> <p>This includes education, inspections, land-based and at-sea patrols, monitoring, intelligence gathering, prosecutions, customary liaison, and data analysis.</p>
<b>Skills</b>	<p>Fishery officers require a range of soft, physical, and knowledge skills, including:</p> <ul style="list-style-type: none"> <li>• in-depth understanding of the relevant legislation and the organisation's policies</li> <li>• the ability to relate to people, use empathy, be able to communicate to a range of people and be flexible to change</li> <li>• de-escalation skills and the ability to judge when to leave a conflict situation.</li> </ul>
<b>Responsibilities</b>	<p>Officers are responsible for the enforcement of the Fisheries Act and gaining compliance with it. They are responsible for ensuring that the natural resource is kept sustainable by enforcing compliance of this Act for commercial, recreational and customary fishing.</p> <p>Officers are required to educate those with fishing interests on legislation relevant to them. They are responsible for training, assisting, and planning the work of a network of 'Honorary Fishery Officer' volunteers.</p>

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<b>Demands</b>	<p>A high level of resilience is required for the role, as officers are often dealing with situations of stress and aggression.</p> <p>There is a need for officers to concentrate on work to avoid injury or offences.</p> <p>Moderate physical effort is required in order to complete the work, including lifting heavy objects and maintaining a suitable level of fitness.</p>
<b>Working conditions</b>	<p>Officers are required to work on the land, coastal areas and at sea.</p> <p>Generally, officers would be in the office for two days per week.</p> <p>Most of the work is conducted outdoors in coastal areas and at sea in vessels. They are exposed to extreme weather conditions, noxious odours, dust and dirt, injury and noise. Officers are regularly exposed to verbal abuse from the public.</p>
<b>Corrections officers</b>	<p>Range of PEAM scores: 442-497</p> <p>Profile PEAM score: 459</p>
<b>Role overview</b>	<p>Corrections officers are responsible for ensuring the security and care of offenders and supporting their rehabilitation and pathways towards an offence-free lifestyle.</p> <p>The corrections officer achieves these accountabilities by having the right relationship with offenders, visitors and other staff.</p>
<b>Skills</b>	<p>Officers must have good knowledge of policies, procedures and legislation. They require a working knowledge of Māori culture and tikanga as well as sensitivity to the requirements of other cultures.</p> <p>They need to have conflict-resolution skills, be able to de-escalate situations, and identify when a situation might escalate before it happens. An officer needs to be able to relate to a range of people.</p>
<b>Responsibilities</b>	<p>While the officers do not have any people leadership responsibilities, they do participate in a 'buddy' system for new officers.</p> <p>In their role they undertake substantial recording of important and confidential information. This includes prisoner behavior, learning and other sensitive information.</p> <p>This role actively gains a basic understanding of people's particular situations or needs to provide advice, instruction, care, or assistance to individuals.</p>
<b>Demands</b>	<p>The role can be mentally and emotionally demanding. Officers are in situations of aggravation and high stress daily and must regularly de-escalate aggressive situations.</p> <p>Fatigue and stress are an issue for officers in this role.</p>
<b>Working conditions</b>	<p>Corrections officers work inside prisons which is naturally a challenging environment in which to operate.</p> <p>They are exposed to violence and subjected to abuse.</p> <p>The environment is lacking in natural light and can be noisy at times.</p>

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<b>Customs officers</b>	<p>Range of PEAM scores: 361-480</p> <p>Profile PEAM score: 456</p>
<b>Role overview</b>	<p>Customs officers protect New Zealand's border and promote New Zealand by facilitating trade and welcoming visitors.</p> <p>They undertake a wide range of duties, in varying locations and work environments. Customs officers work across several work areas.</p>
<b>Skills</b>	<p>Officers require very good people-responsiveness skills, involving discretion and diplomacy in dealing with others in situations of stress, concern and in emotionally charged situations at times.</p> <p>The customs officer will have a well-developed ability to de-escalate emotionally charged situations. Knowledge of current relevant legislation and travellers' rights is a requirement of officers in this role.</p>
<b>Responsibilities</b>	<p>This role has limited authority and operates under the close supervision of a senior customs officer with clear procedural requirements dictating what and when issues need to be escalated.</p> <p>Officers undertake substantial recording of important and confidential personal information where care around disclosure is critical. This may relate to intelligence received or generated, as well as documenting evidence for subsequent action including prosecution.</p> <p>They work collaboratively with other team members to achieve consistent standards and adherence to organisational requirements. As most customs officer interactions are not relationship based, the level of services to people requires them to gain a basic understanding of people's particular situations or needs in order to provide advice, instruction, care or assistance to individuals.</p>
<b>Demands</b>	<p>Officers are required to have a high level of resilience, as they are working in situations where people are in states of high stress. This role requires officers to be alert and attentive to tasks which are often repetitive in nature.</p> <p>Extended periods of standing required in this role, where officers are required to remain alert.</p>
<b>Working conditions</b>	<p>Officers are often required to work in the confinements of an airport which has a lack of natural light and may be required to work in confined spaces whilst carrying out inspections.</p> <p>They are exposed to drugs and dangerous contraband. There is risk of injury through physical abuse from agitated passengers, lifting of tools or the incorrect use of tools.</p> <p>Exposure to illness is common while working in an airport.</p>



<b>Parking compliance officers</b>	Range of PEAM scores: 419-448 Profile PEAM scores: 427
<b>Role overview</b>	<p>Parking compliance officers work with the public to manage the flow of traffic. Specifically, to encourage compliance from the public towards parking bylaws and legislation.</p> <p>They will provide guidance on parking restrictions and encourage compliance from the public.</p> <p>If needed, officers conduct enforcement through issuing tickets for offences or towing vehicles</p>
<b>Skills</b>	<p>Officers are required to have a high level of conflict-resolution skills.</p> <p>A sound understanding of the relevant traffic bylaws and legislation is required as well as being able to relay these to educate the public.</p> <p>They can make judgement calls of when to escalate an issue to a senior or leave a situation due to aggression.</p>
<b>Responsibilities</b>	<p>Officers are responsible for encouraging compliance and educating the public on traffic bylaws and legislation.</p> <p>Enforcement is through issuing tickets and removing vehicles. Education is the preferred action.</p> <p>Officers are responsible for ensuring the correct action is taken.</p> <p>Officers are assigned an area to patrol each day and they plan their own day around this. They require the ability to work independently and make judgement calls including when to escalate an issue or seek advice from a senior.</p>
<b>Demands</b>	<p>A high level of resilience is required for the role, as they are often dealing with situations of stress and aggression.</p> <p>Concentration is required to ensure tickets are issued correctly.</p> <p>Moderate physical effort is required to complete the work, as officers are required to be walking for long periods of time.</p>
<b>Working conditions</b>	<p>Officers are required to work outdoors most of the time. They would only be required to be in the office for 15 minutes per day. In extreme weather conditions such as heavy rain, officers are paired up and areas are patrolled by vehicle.</p> <p>They are exposed to noise and dirt associated with traffic and the central business districts.</p> <p>Officers are regularly verbally abused by members of the public; for example, this can occur when they are patrolling an area by foot and passers-by yell abuse from cars.</p>



<p><b>Teacher aides</b></p>	<p>Range of PEAM scores across the four grades: 296-538</p> <p>PEAM score range and average score per grade:</p> <ul style="list-style-type: none"> <li>» Grade A: 300-360 (315)</li> <li>» Grade B: 361-420 (386)</li> <li>» Grade C: 421-480 (439)</li> <li>» Grade D: 481-540 (529)</li> </ul>
<p><b>Role overview</b></p>	<p>There are three types of teacher aide roles:</p> <p>The general support role delivers a structured programme, lesson plans and activities. The degree to which a teacher aide will be involved in planning these lessons varies, from applying a set plan or programme to creating plans and programmes themselves.</p> <p>The additional support role supports the learner's wellbeing, as well as health and safety. The support provided to students varies from assisting learners to providing highly specialised support to students with complex needs.</p> <p>The te ao Māori role supports and guides reo and tikanga within the school setting. There are varying levels of support provided by a teacher aide from developing to leading and advocating for te reo Māori in the kura and community.</p>
<p><b>Skills</b></p>	<p>Teacher aides bring a range of skills to the role, including monitoring and observing children to identify subtle clues in their behaviour.</p> <p>They need to have a high level of patience and empathy towards children, and be able to negotiate, persuade and influence children daily.</p> <p>The flexibility to change their response to a situation and accommodate different needs, resilience, and control of their emotions are required to achieve positive outcomes.</p> <p>They bring strong relationship-building skills, and the ability to build rapport with adults and children in a short time frame to build trust.</p>
<p><b>Responsibilities</b></p>	<p>This role is ultimately responsible for the needs of students with special educational requirements.</p> <p>In some cases, teacher aides are responsible for collecting information about a child's state of mind and wellbeing and liaising with parents and external specialists.</p> <p>Teacher aides bear the responsibility for the child's learning and general care.</p> <p>They would also be responsible for communicating with parents about any issues with children's learning.</p>
<p><b>Demands</b></p>	<p>This role requires a high level of resilience to provide emotional engagement, support, and encouragement.</p> <p>Often, they must work with children in a high state of distress and personal need.</p> <p>Teacher aides are required to focus on activities to ensure the safety of the child in their care as well as ensuring learning objectives are met.</p>
<p><b>Working conditions</b></p>	<p>Teacher aides are working within classrooms. They are exposed to frequent intimidation and verbal abuse throughout the working day.</p> <p>Verbal abuse includes personal remarks, swearing, and screaming.</p> <p>They are also exposed to body fluids and are regularly required to clean these up.</p>

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<p><b>Administration support staff</b></p>	<p>Range of PEAM scores across the seven grades: 327 – 635</p> <p>PEAM score range and average score per grade:</p> <ul style="list-style-type: none"> <li>» Grade 1: No PEAM scores in this grade</li> <li>» Grade 2: 301-360 (331)</li> <li>» Grade 3: 361-420 (399)</li> <li>» Grade 4: 421-480 (451)</li> <li>» Grade 5: 481-540 (500)</li> <li>» Grade 6: 541-600 (570)</li> <li>» Grade 7: 601-660 (624)</li> </ul>
<p><b>Role overview</b></p>	<p>There is a wide variety of roles ranging from financial administrators to sports co-ordinators to school receptionists.</p> <p>School administrators support the smooth operation of the school and ensure it is a safe and productive learning environment for students and colleagues.</p> <p>Their role involves coordination and communication across a range of platforms and with all members of the school community including families, staff, external agencies and senior leadership.</p>
<p><b>Skills</b></p>	<p>Administration support staff require knowledge of how to use a range of computer systems and programmes to accomplish their work.</p> <p>They utilise problem-solving skills to resolve a wide variety of issues that can be complex in nature.</p> <p>School administrators bring sound communication skills which they use to build and maintain relationships with diverse members of the school community.</p>
<p><b>Responsibilities</b></p>	<p>Administration support staff hold a wide range of financial responsibilities, from assisting and supporting to total oversight of school finances.</p> <p>Their work can involve people management responsibilities, including overseeing employment matters and inducting new staff.</p> <p>Administration support staff ensure the school is fit for purpose and the necessary equipment is available. They support the health of students at the school by coordinating with specialists or administering first aid.</p>
<p><b>Demands</b></p>	<p>Administration support staff are required to focus and concentrate for sustained periods of time.</p> <p>Some administration support staff have public-facing roles; they are required at times to de-escalate and find solutions in highly charged emotional situations.</p>
<p><b>Working conditions</b></p>	<p>Most administration support staff work in an office environment. Some manage the school's sick bay and look after sick and injured students.</p> <p>In some roles administration support staff are on call and are required to work outside normal working hours. Some roles are required to work outside in adverse working conditions.</p> <p>They can be exposed to verbal abuse.</p>

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## Comparison of work and factor scores

The PEAM scores of the claimants and potential comparator occupations were considered against each other at each new proposed grade and confirmed that the level of work of the claimants was the same or substantially similar to that of certain comparators, depending on the grade.

The table below shows, the comparators that the parties agree to be comparable to the claimants at each grade (highlighted green). It should be noted that discussion during bargaining may determine that additional potential comparators are considered comparable.

	SPEC Grade 1	SPEC Grade 2	SPEC Grade 3
Fishery Officers			
Corrections Officers			
Customs Officers			
Parking Compliance Officers			
Cadastral Surveyors			
TAs (A)			
TAs (B)			
TAs (C)			
TAs (D)			
Admin (2)			
Admin (3)			
Admin (4)			
Admin (5)			
Admin (6)			
Admin (7)			





# Assessment of contract terms, remuneration and funding settings

## Science technicians' funding settings

School science technicians are funded through the schools' operations grant which covers a school's running costs, including the wages of all non-teaching staff, property maintenance, classroom materials, purchase and depreciation of capital items, leases and rentals and staff professional development. It is calculated using school rolls and other factors such as decile (replaced by the Equity Index from January 2023) and is responsive to roll fluctuations.

## Science technicians' remuneration settings

School science technicians are covered by the Support Staff in Schools' Collective Agreement (SSSCA) between NZEI Te Riu Roa and E Tū and the Secretary. Approximately 42 percent of school science technicians are employed under this collective agreement. The rest are employed on individual employment agreements promulgated by the Secretary. These often mirror the terms of the collective agreements.

Support staff in schools are paid on either an hourly basis or an annual salary, depending on their hours of work.

### Allowances

There are multiple allowances available to school science technicians. Analysis of the Ministry internal payroll data (January 2021 – December 2021) shows the allowances received by school science technicians.<sup>20</sup>

Because the SSSCA is a 'minimum rates' document, schools can, and do, pay above the printed rate in individual cases. A salary loading allowance may be used for this purpose.<sup>21</sup>

Table 5: Claimant workforce data (Jan – Dec 2021) on allowances received

Allowance type	Total staff receiving allowance	Percentage of staff receiving allowance
Salary loading	60	19%
First aid	22	7%
Qualification	174	55%

### Salary grades and progression

The SSSCA sets out the minimum rates, across eight steps and four grades, displayed below.

Every position is placed in one of four grades (A, B, C, D). The employer will determine the grade for each position after consideration of the job description and any other requirements of the position.

<sup>20</sup> Ministry of Education. 2022. *Workforce data 1 Science Technicians and Librarians Jan – Dec 2021*. Allowances Tab.

<sup>21</sup> There are a range of other reasons salary loading may be applied including recognition of additional duties or as an administrative solution to comply with a school instruction to payroll



According to the SSSC, when an employee is appointed their starting rate and step is based on:

1. The grade of the role that they are being appointed to
2. Previous relevant paid or unpaid work experience
3. The level at which the employer has assessed each of the five position elements<sup>22</sup>
4. The level of te reo Māori and understanding of ngā tikanga Māori required for the position
5. The ease or difficulty in recruiting and/or retaining the specific skills and/or experience required for the position.

Table 6: Claimant current pay scale from latest SSSCA

Pay scale (Current rates - effective 2 June 2022)			
Grade	Step	Hourly rate (\$)	Annual salary (\$)
A & B	1	22.75	47,320
B & C	2	22.92	47,674
C	3	23.69	49,275
C	4	24.56	51,085
C	5	25.43	52,894
C	6	26.30	54,704
C & D	7	27.17	56,514
D	8	36.69	76,315

Support staff employees progress one step within their grade on an annual basis if they meet or exceed standards of performance unless they are on the top step for their grade.

Movement between grades occurs by appointment to a new position or by regrading of a position where the requirements have altered substantially.

### Top of pay grade

Analysis of the Ministry internal payroll data (January 2021 – December 2021) shows that there were 187 employees (60 percent) who had reached the top step of their respective pay grade.<sup>23</sup> Figure 4 presents the percentage of staff on the top step of their grade, broken down by pay grade. It should be noted that, because there is only one step in Grade A, all employees in this grade are automatically at the top of their grade. There is some overlap between steps at the other grades. Grade B has two possible steps, there are 6 in grade C, and a range of rates in grade D (i.e., no set steps).

<sup>22</sup> NZEI Te Riu Roa, E tū and the Secretary for Education, *Support Staff in Schools' Collective Agreement, 20 June 2022 to 19 February 2024*, 2022, Part 3.7.1. Support Staff in Schools' Collective Agreement – Education in New Zealand

<sup>23</sup> Ministry of Education. 2022. *Workforce data 1 Science Technicians and Librarians Jan – Dec 2021*. Grade and top of grade tab.

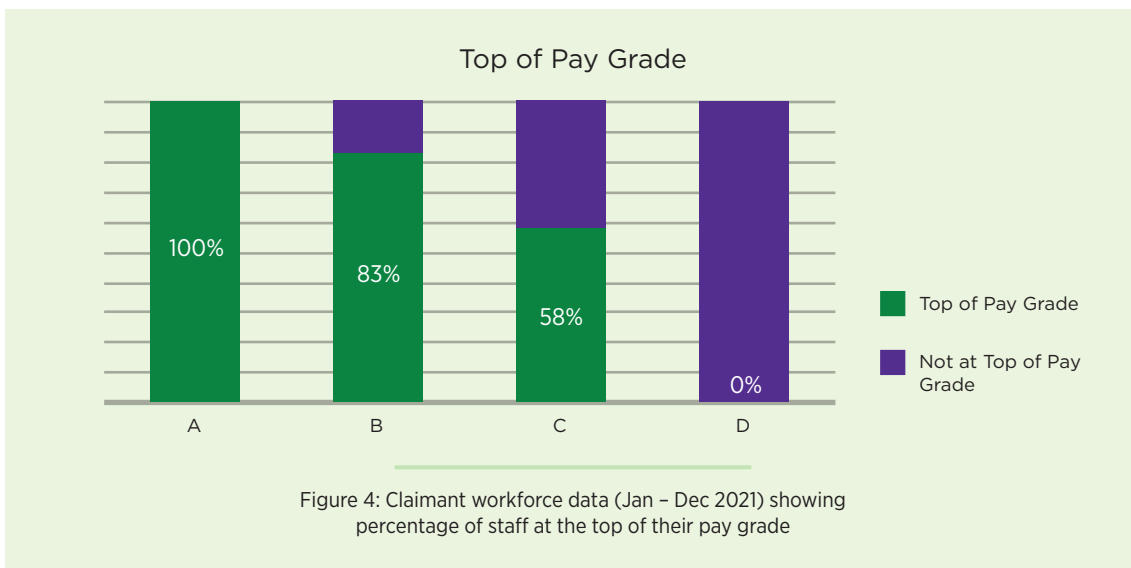


Figure 4: Claimant workforce data (Jan - Dec 2021) showing percentage of staff at the top of their pay grade

### Remuneration over time

In 1989, the maximum rate of pay for school science technicians was 79 percent of the average New Zealand hourly rate. In 2020, the maximum pay rate for school science technicians remained relatively similar, with science technicians receiving approximately 79 percent of the average hourly rate within New Zealand.<sup>24</sup>

On average since 1991, the lowest pay rate for support staff in schools has increased at an average annual rate of 5.13 percent, while the highest pay rate has increased by 3.75 percent.<sup>25</sup>

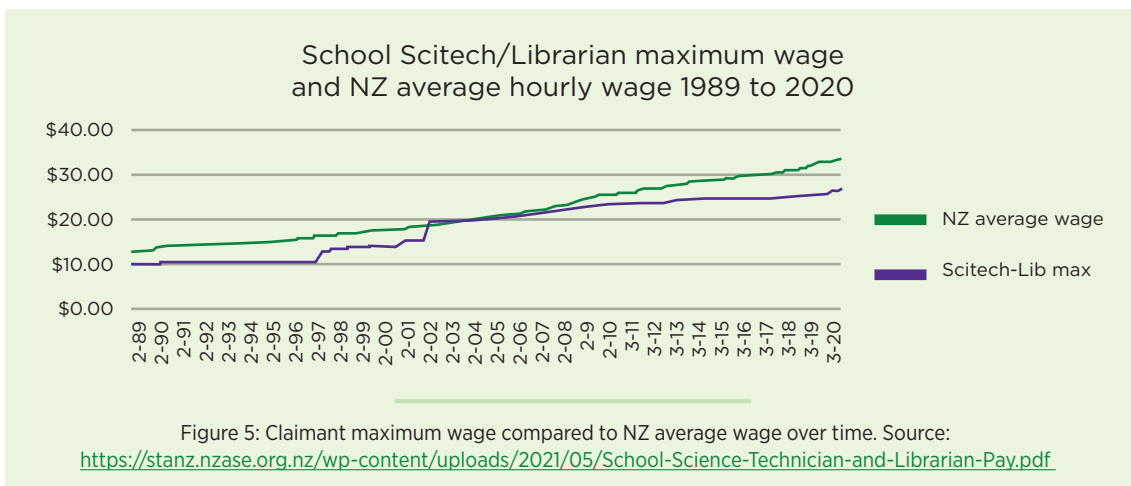


Figure 5: Claimant maximum wage compared to NZ average wage over time. Source:

<https://stanz.nzase.org.nz/wp-content/uploads/2021/05/School-Science-Technician-and-Librarian-Pay.pdf>

In December 2019, support staff in schools voted to accept a collective agreement that made \$21.15 the new minimum pay rate (raised from \$17.70 per hour). In the current pay scale structure, support staff on step 1 now earn \$22.75 per hour (effective from 2 June 2022), while the minimum wage as of 1 April 2022 is \$21.20 per hour.<sup>26</sup>

24 De Stigter, Ian. 2021. *School Science Technician and Librarian Pay Relativity to the average hourly wage, 1989-2020*. Science Technician Association New Zealand. Accessed 10 October 2022. <https://stanz.nzase.org.nz/our-people/advocacy-articles/>

25 Ministry of Education Internal Document. 2021. PwC Remuneration Assessment for Pay Equity Claims Report.

26 NZEI Te Riu Roa, E tū and the Secretary for Education, *Support Staff in Schools' Collective Agreement, 20 June 2022 to 19 February 2024*, 2022, Part 3.2.2.

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The below table illustrates the 2021 median pay rate per grade (not including allowances) and the percentage of science technicians on those grades, based on Ministry internal payroll data (Jan – Dec 2021).<sup>27</sup>

Grade	Median hourly rate (\$/hour)	% of science technicians on this grade
A	21.78	2%
B	21.95	17%
C	26.20	73%
D	28.76	8%

### Science technicians' employment agreements

Analysis of Ministry of Education internal payroll data (January 2021-December 2021) shows that 88 percent of school science technicians were on a permanent employment agreement, and 12 percent were on a fixed-term agreement. Data also shows that the majority, 65 percent, of science technicians are working fewer than 26 hours per week.

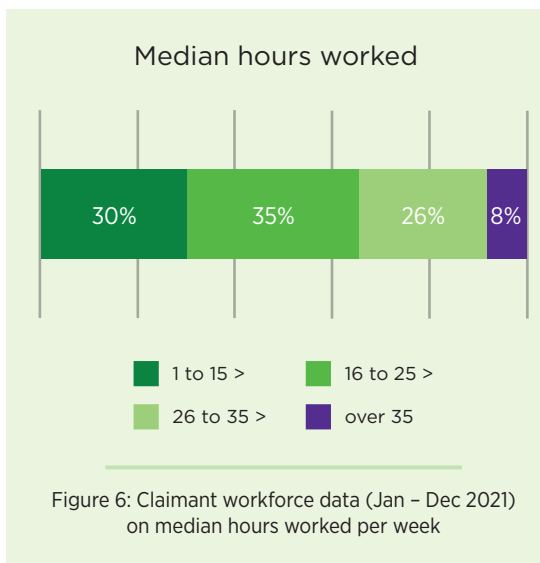


Figure 6: Claimant workforce data (Jan – Dec 2021) on median hours worked per week

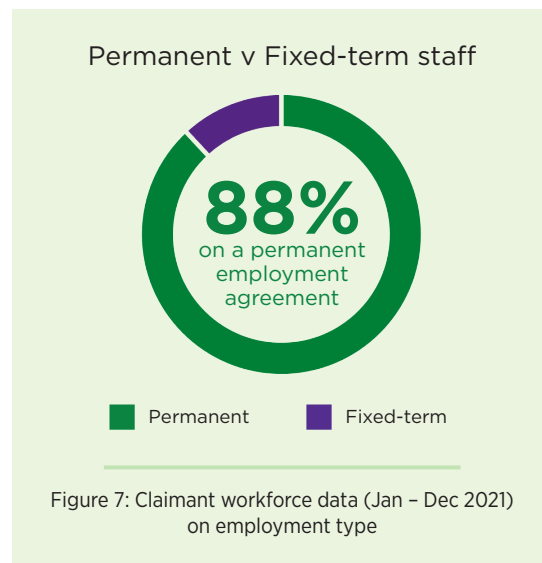


Figure 7: Claimant workforce data (Jan – Dec 2021) on employment type

The SSSCA states that the employer sets the number of weeks worked per year in accordance with the requirements of the school/kura. This means the majority of school science technicians are employed during term time only, which equates to between 40 and 44 weeks a year. Ministry Internal payroll data (Jan – Dec 2021) shows that 24 percent of the claimant workforce received pay on every pay run of the year.<sup>28</sup> It should be noted that this figure includes term-time only employees who choose to annualise their pay, meaning that although they only work part of the year, their pay is spread evenly so they receive pay throughout the whole year.

<sup>27</sup> Ministry of Education. 2022. *Workforce data 1 Science Technicians and Librarians Jan – Dec 2021*. Grade and Top of Grade Tab.

<sup>28</sup> Ministry of Education. 2022. *Updated number of payruns Science Technicians and Librarians Workforce Jan – Dec 2021*. Worked all 2021 tab.

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## Comparator Remuneration Settings

Printed rates detailed in the most recent collective agreements for the comparators along with other remuneration, terms and conditions were investigated and considered alongside the PEAM score comparison work. It should be noted that this part of the analysis only provides a starting point to begin looking at the undervaluation. In order to fully understand the extent of the undervaluation, an application of the total remuneration and terms and conditions assessment as well as a consideration of the school context needs to be overlaid.

The table below details the entry and top rates<sup>29</sup> printed in collective agreements for claimants and comparators. Claimants' and settled claim comparators' pay details are further broken down by grades where grade boundaries are not permeable (i.e., no step-based progression through to the next grade). The table also shows the approximate number of years needed in the role to progress from the entry rate to the top rate. This information is either stated in the collective agreement or calculated based on automatic annual step progression through a pay grade matrix.

Table 7: Claimant and comparator entry and top rates, and approximate number of years to progress between these two rates

Claimant and comparator collective agreement pay grades	Entry rate (\$)	Top rate (\$)	Approximate number of years to progress from entry rate to top rate (years)
CLAIMANT A	22.75	22.75	Not applicable
CLAIMANT B	22.75	22.92	1
CLAIMANT C	22.92	27.17	5
CLAIMANT D	27.17	36.69	Unknown
TA A	22.75	23.67	2
TA B/C	24.62	31.72	9
TA D	31.25	36.63	5
ADMIN 1	22.75	22.75	Not applicable
ADMIN 2/3/4	23.57	32.88	12
ADMIN 5	34.13	41.64	6
ADMIN 6	42.61	45.51	3
ADMIN 7	47.19	55.62	5
Parking Compliance	24.50	28.82	2
Corrections Officer	28.61	30.86	1
Fishery Officer	32.06	45.85	10
Customs Officer	25.99	31.45	4
Cadastral Surveyors	45.95	54.06	7

<sup>29</sup> Top rates are based on available information from collective agreements and remuneration data on the 100% or fully competent rate. It should be noted that some comparator pay scales have steps above the top rates used in this report, to allow employees to progress beyond the 100 percent or fully competent salary.



## Conclusion

The parties considered the range of claimant PEAM claimant scores (435-530), and remuneration against the PEAM scores, and remuneration of the potential comparators listed above, and determined that the claimants' work is undervalued on the basis of sex.

This evidence provides a good starting point for understanding the scale of the undervaluation and for a basis to consider how solutions may be developed.



# Appendices

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Appendix 1: SPEC Terms of Reference

## School Science Technicians' Pay Equity Claim **Terms of Reference**

**SEPTEMBER 2021**



# Contents

Parties .....	<b>3</b>
Background.....	<b>3</b>
Purpose.....	<b>4</b>
Scope.....	<b>4</b>
Working together .....	<b>4</b>
Resolving matters in dispute .....	<b>5</b>
What must be achieved? .....	<b>5</b>
How will we achieve it? .....	<b>6</b>
Raising a claim .....	<b>7</b>
Assessing the claim .....	<b>7</b>
Evidence Report .....	<b>8</b>
Settling the claim.....	<b>9</b>





## Parties

1. The parties to the School Science Technicians Pay Equity Claim (the Claim) process are:
  - » The Ministry of Education (the Ministry) on behalf of the Secretary for Education acting under delegation from the Public Service Commissioner
  - » New Zealand Educational Institute Te Riu Roa (NZEI Te Riu Roa) on behalf of its members who perform the work set out in the Claim.
2. The New Zealand School Trustees Association (NZSTA) is not a party to the Claim, but the Ministry will consult with NZSTA as a representative of the employers who will be bound by any settlement of the Claim.

## Background

3. On the 6th of November 2020, NZEI Te Riu Roa formally notified the Ministry of a pay equity claim for School Science Technicians.
4. The parties note that this process is being undertaken pursuant to the Equal Pay Act 1972 (the Act). The Parties acknowledge the long history of the Equal Pay Act and in particular the recent work done by the tripartite group to form the Reconvened Joint Working Group (RJWG) Principles.
5. The Secretary for Education has agreed that it is arguable that the Claim relates to work that is or was predominately performed by female employees; and it is arguable that the work is currently undervalued or has historically been undervalued.
6. Every employee of state or state integrated schools who performs work that is the same as, or substantially similar to, the work to which the Claim relates, is covered by this Claim. An employee who is covered by the Claim and is not a member of NZEI Te Riu Roa may opt out in the manner prescribed by s13Y of the Equal Pay Act 1972 (the EPA).
7. These Terms of Reference (ToR) specify the pay equity bargaining process that the parties will use and that the parties agree is suitable and sufficient to settle the Claim.



## Purpose

8. The purpose of these ToR is to establish the process by which the parties will address the Claim.
9. These ToR describe the pay equity bargaining process for the Claim, they specifically define:
  - » who will take part and how we will work together
  - » what must be achieved
  - » how it will be achieved and the commencement date.

## Scope

10. The Claim covers school science technicians and those doing the same or substantially similar work.
11. The parties agree that the scope of the Claim may be affected by the outcome of the pay equity investigations; that is the scope may shift to either include or exclude some roles.

## Working together

12. As the pay equity claim process is a joint venture between the Ministry and NZEI Te Riu Roa, it is important that we find ways to work together, problem-solve efficiently and in good faith, communicate well and share information.
13. The principles and expectations underpinning our engagement are:
  - » committing to following the process set out in the EPA in an effective and efficient manner to resolve the Claim
  - » attending the necessary meetings and meeting as agreed to review progress
  - » recognising the role and authority of the person chosen by each party to be that party's representative or advocate
  - » respecting the independence of each organisation including recognition of each other's specific responsibilities and accountabilities
  - » committing to keeping our respective executive groups and other key stakeholders informed
  - » participating in timely and effective decision-making processes based on a relationship of honesty

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- » negotiating in good faith to settle the pay equity claim
  - » not undermining, or doing anything that is likely to undermine, the bargaining or the authority of another party in the bargaining.
14. A joint working group made up of people from the Ministry and NZEI Te Riu Roa will meet as necessary to discuss and manage:
- » progress of the claim, and oversight of timeframes and timelines
  - » problem solving issues and risks, and identifying opportunities for continuous improvement
  - » joint communications
  - » progress through the stages of the Pay Equity Claim process as outlined below
  - » any other business.
15. Actions and key points arising from these meetings will be recorded and circulated post-meeting to all parties, and joint agreement of these minutes will be recorded. This will make sure everyone is on the same page and any actions have clear ownership.

## Resolving matters in dispute

16. Issues will be resolved, wherever possible, at the lowest possible level to where they arise.
17. Any party is able to notify the other and bring in senior staff if it considers this will assist the group's progress.
18. In the event of a disagreement, the parties acknowledge that dispute resolution processes are available, including mediation in the manner prescribed under s13ZO of the EPA.
19. If mediation is unsuccessful, a party may progress to dispute resolution through the Employment Relations Authority in the manner prescribed under sections 13ZQ to 13ZZ of the EPA.

## What must be achieved?

20. The parties to the Claim will determine whether the work of employees covered by the Claim is undervalued by following the process set out in the EPA.
21. If sex-based undervaluation is found, the Claim is **settled** when:
- » remuneration is determined that the parties agree does not differentiate between male and female employees in the manner set out in section 2AAC(b) of the EPA



- » a process is agreed to review the employee's remuneration to ensure that pay equity is maintained, including the agreed frequency of reviews
- » those matters are recorded in writing in accordance with s13ZH(3) of the EPA
- » other terms and conditions of employment are not reduced by the introduction of pay equity.

22. A settlement may also include terms and conditions of employment other than remuneration where the parties agree.

## How will we achieve it?

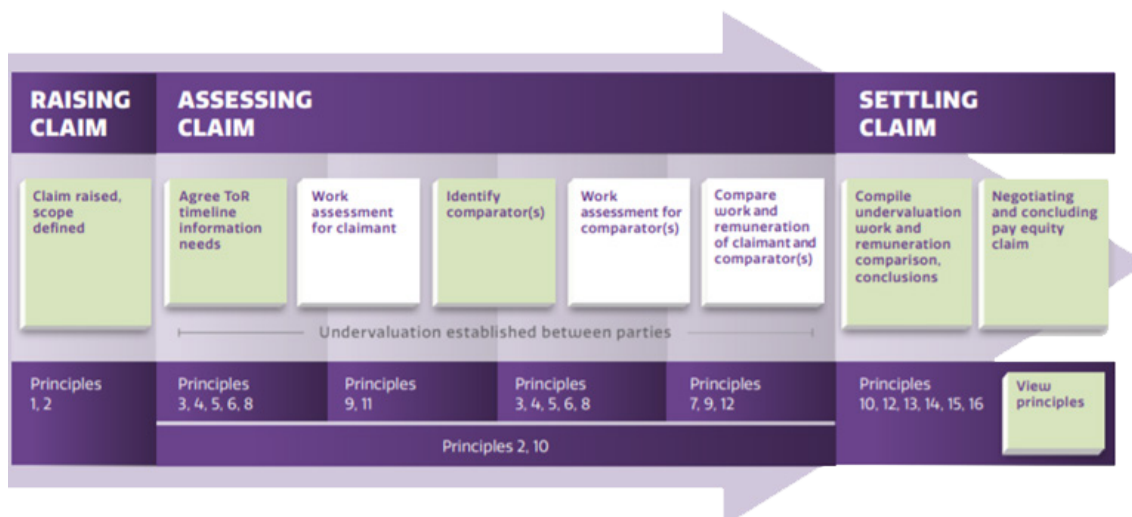
23. Once these ToR are signed by all parties, the parties will move through the stages of the pay equity process that work alongside the principles. The stages are:

- » Raising a claim
- » Assessing a claim
- » Settling a claim

24. Parties to this Claim acknowledge that the process for investigating this Claim needs to be undertaken with consideration of other pay equity claims currently being investigated in the Education Sector.

25. Parties will endeavour to ensure that the methodology agreed for use to administer this Claim facilitates efficient sharing of data where possible.

26. The diagram below outlines the three stages in more detail.



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27. Parties have agreed to ensure efficient and timely completion of all phases of the Claim process and have committed to achieving settlement as soon as reasonably practicable. This includes consideration of mechanisms to expedite the process by sharing, where possible, the process and data used to investigate and settle other pay equity claims where data is applicable to the Claim.
28. Parties have indicatively agreed to commence the formal assessment process during Term 3 of the 2021 schooling year.

## Raising a claim

29. The parties agree the requirements for raising a claim have been met, and parties have confirmed the Claim is arguable.

## Assessing the claim

30. The parties will determine whether the employee's work is undervalued by assessing—
  - » the nature of the work to which the Claim relates, and the nature of comparators, including, in each case, the following:
    - The skills required, the responsibilities imposed, the conditions of work, the degree of effort required to perform the work, the level of experience required to perform the work and any other relevant work features.
    - Terms and conditions of employment (other than remuneration) of the persons who perform the work to which the Claim relates; and of persons who perform comparable work.
    - The remuneration that is paid to the persons who perform the work to which the Claim relates and the remuneration that is paid to persons who perform comparable work.
    - Any other matters prescribed by regulations for the purpose of section 13ZD of the EPA.
31. In making the assessments the parties must consider matters objectively and without assumptions based on sex (and prevailing views as to the value of work must not be assumed to be free of assumptions based on sex); and must recognise the importance of skills, responsibilities, effort, and conditions that are or have been commonly overlooked or undervalued in female-dominated work (for example, social and communication skills, taking responsibility for the well-being of others, cultural knowledge, and sensitivity); and must consider the list of factors in s13F(3) of the EPA.
32. The stages of assessment are:



- i. The collection of information about the claimant work from a variety of data sources including collective employment agreements, historical information and claimant and supervisor interviews.

The parties agree that this information gathering stage needs to be efficient, iterative, flexible, and will establish regular checkpoints to ensure that sufficient information has been collected to gain a comprehensive understanding of the work of school science technicians.

Parties have agreed to an initial interview sample size of 25 School Science Technicians. Interviewees will be drawn from randomly selected workplaces and will be demographically representative of school science technicians. Regular checkpoints will be established to review parties' satisfaction with the quality and quantity of data as it is collected, and parties may agree to revise the total number of interviews accordingly as the research progresses.

- ii. Selection of appropriate comparators as prescribed by s13ZE of the EPA and according to any other criteria agreed by parties.
- iii. The collection of information - including through interviews and collective employment agreements - on comparators in order to understand the nature of comparator work, terms and conditions of employment, and remuneration. Where comparators have been chosen from other completed or current pay equity work, a decision will be made as to whether additional interviews for these comparators is necessary or not.
- iv. Examination of the work of both claimant and comparator roles using a gender-neutral work evaluation tool. The parties have agreed to use the Pay Equity Aromatawai Mahi (PEAM) tool as the assessment method.
- v. Comparison of the roles covered by the Claim and comparator roles, including the work being performed and the remuneration paid to those performing the work.

## Evidence Report

33. As the claim progresses, the parties will work together to produce a report that sets out the process used to assess this claim, and the evidence and information gathered through that process.
34. The methods used for key processes and assumptions made will be described in the report, as well as any conclusions agreed.
35. The report will contain factually recorded evidence and data derived from the assessment of the claim. Should conclusions reached from the evidence gathered differ between the parties, and consensus is not able to be reached, then these areas of difference are to be documented and the rationale for the respective positions articulated.



## Settling the claim

36. Both parties expect to draw on this report, along with the body of evidence gathered, to determine whether pay and employment terms and conditions inequities exist on the basis of sex and how these should be addressed, to proceed to settling the claim.
37. This determination involves:
- i. concluding whether the remuneration of employees covered by the Claim is affected by sex-based undervaluation
  - ii. negotiating and agreeing a new rate(s) of remuneration that does not differentiate based on sex and does not reduce other terms and conditions
  - iii. considering whether terms and conditions of employment other than remuneration may require correction
  - iv. negotiating and agreeing a process to review the terms and conditions of employment covered by the Claim to ensure that pay equity is maintained, including the frequency of reviews which must be aligned with any applicable collective agreement negotiations
  - v. recording any settlement in writing, including the agreed review process.
38. Prior to settling the Claim, NZEI Te Riu Roa must establish a process for employees covered by the Claim to vote on whether to approve or decline a proposed pay equity claim settlement in accordance with s13ZF of the EPA.
39. The parties agree to manage communications under the good faith principles of the Employment Relations Act 2000.

### Acceptance of the Terms of Reference

Signed by:

Iona Holsted, Secretary for Education

Date 8/10/2021

Paul Goulter, National Secretary NZEI Te Riu Roa

Date 6/10/21

Lorraine Kerr, President of STA

Date 7 October 2021

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## Appendix 2: General Areas of Responsibility

# School Science Technicians' Pay Equity Claim

## General Areas of Responsibility

As part of the investigation stage of the pay equity process, interviews\* were conducted with a sample of science technician staff working in schools across Aotearoa between October 2021 and February 2022 and again in May 2022 following sector consultation. The data has been analysed and used to create these general areas of responsibility, which reflect the range and variety of responsibilities and activities done by science technician staff. It should be noted that while this report identifies the scope of activities science technician staff perform, levels of expertise, demand and effort may vary. These elements encapsulated within individual activities will be captured during the final assessment phase of the process. It is also important to note that no individual science technician role is expected to carry out every activity identified but science technician staff should see the responsibilities of their role reflected in the general areas of responsibilities identified.

*\* Please note these interviews were conducted during the COVID-19 pandemic. As a result, the role may have evolved to include related responsibilities that are relevant to this point in time.*

1. Facilitating science curriculum delivery
2. Storing, creating, maintaining, transporting and sharing science resources and equipment
3. Procuring resources and conducting financial administration for the science department
4. Managing the school's health and safety procedures
5. Developing, maintaining and sharing relevant knowledge and experience
6. Building relationships and communicating with students, colleagues, agencies and the community
7. Enhancing students' participation and engagement in learning
8. Maintaining and contributing to the development of buildings and grounds
9. Being aware of and supporting bi- and multi-cultural practices
10. Contributing to the effective functioning of the school

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# 1. Facilitating science curriculum delivery

*Science technicians prepare the necessary safety and instruction information, resources, chemicals, equipment and apparatus for experiments and practical activities. They may assist the class teacher to conduct demonstrations and experiments or support practical activities during class. Science technicians contribute to the creation and trialling of practical activities and write or adapt the documentation of practical activities for future reference. Science technicians use software such as RiskAssess and paper-based scheduling systems to determine the resource and equipment demands for each class, as well as the risk management of those planned activities. They engage with departmental staff in both a supportive and advisory capacity. Their role spans from supporting with general administration to assisting teachers with their class planning, supervision and assessment of students.*

## Running a scheduling and resource booking system

- » Operating scheduling software, including printing out scheduled requests, generating reports, making updates and troubleshooting if technical issues occur.
- » Ensuring that teachers know how the resource booking system operates and encouraging them to use it.
- » Reviewing scheduled resource and equipment requests to determine daily period requirements.
- » Inputting into the software or informing teachers of resource and equipment availability, preventing them from being double booked.
- » Preventing cross-curriculum resource use within science subjects to ensure experiments are completed in accordance with year level timelines.

## Preparing the resources, equipment and learning environment for class practical activities

- » Predicting what equipment and resources will be needed for classes using knowledge of the termly schedule for unit or topic delivery.
- » Gathering and providing teachers with sets of equipment and resources required in time for scheduled activities, including by calculating and creating chemical solutions and titrations.
- » Assisting staff in locating required equipment and resources.
- » Applying restraints to live specimens such as insects to be used in class practical activities.
- » Setting up the learning environment with the appropriate equipment for planned class activities, internal and external assessments.

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- » Repurposing or adapting existing material and equipment for experiments and practical activities where possible.
- » Ensuring that all required work can be carried out in an expected absence from work, including the advanced preparation of classroom resources, equipment and notes for teachers.
- » Conducting room checks to ensure they are safe for use.
- » Switching heating on/off in classrooms.
- » Caring for seedlings for charity planting programmes.

### **Operating specialist apparatus or machinery to support curriculum delivery**

- » Using specialised equipment such as water baths, vernier equipment, amp meters and microscopes to prepare classroom activities.
- » Handling gas supply bottles, including hydrogen cylinders and ensuring a consistent supply of LPG (liquefied petroleum gas) for laboratory use.
- » Using a fume hood correctly and in appropriate situations.
- » Driving specialist vehicles such as tractors.

### **Providing planning support, advice and ideas to the department**

- » Assisting teachers with lesson planning by providing ideas and making suggestions on what is possible with resources available and what other teachers are doing.
- » Procuring resources and providing advice for teachers wanting to complete an activity outside of the expected syllabus.
- » Supporting teachers with general biology, chemistry, physics and other science subject queries.
- » Using personal knowledge of specialised science discipline to assist and advise the teacher in delivering the topic.
- » Reminding teachers to create laboratory workbooks and providing examples for the workbooks.
- » Identifying and suggesting areas of improvement to enhance department functionality.
- » Assisting in the planning and scheduling of experiments, classroom activities and assessments to meet teacher preferences, avoid timetable conflicts and ensure availability of resources and equipment.
- » Supporting the head of department in the general operation of the science department.
- » Discussing planned activities with teachers and advising on required equipment.
- » Providing feedback in cases where planned class activities are deemed unlikely to be successful, unsuitable for the age group or not possible due to resource availability, safety issues or cost and time constraints.

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- » Checking that teachers have requested all the required resources and equipment.

### **Supporting the teacher with class delivery**

- » Refreshing knowledge of experiment procedures immediately before they are conducted.
- » Ensuring that teachers are provided with the appropriate information to conduct practical activities and experiments in a successful and safe manner.
- » Assisting teachers with equipment set up and the correct usage.
- » Meeting with teachers after experiments and practical activities have been conducted to ascertain whether procedure adjustments are required for future use.
- » Ensuring equipment is cleared away after practical activities and any waste is identified and dealt with appropriately.
- » Conducting class demonstrations of experiments or dissections on behalf of teachers.
- » Supervising a class alongside the teacher when required, including when the teacher needs to step out, prior to class commencing before the teachers' arrival and when confronted with challenging student behaviour.
- » Overseeing classroom activities to ensure safety procedures are followed.
- » Assisting teachers in class to deliver curriculum content.

### **Assisting the teacher with student assessments**

- » Assisting the teacher with assessing student work during class time.
- » Helping to supervise assessments.
- » Marking student assessments.
- » Assisting in data entry of student grades and test results and verifying that grades on hard copy assessments correspond to those entered electronically.
- » Establishing the correct answers for assessment questions.

### **Creating, adapting, testing and documenting class practical activities**

- » Creating or modifying existing experiments for class activities, practice assessments, internal and external assessments.
- » Trialling and adjusting new class practical activities and experiments to ensure that they will be successful.
- » Gathering information on new or altered experiments and using the information to create or amend experiment instruction documents for teachers.



## Supporting the department with general administrative tasks

- » Investigating the most suitable textbooks for school use due to course changes.
- » Issuing student workbooks, including grouping them for easy distribution.
- » Collating and systematically filing school resources and documents.
- » Creating and sending forms or letters to parents or guardians.
- » Photocopying, scanning, printing and laminating resources and documents as required.
- » Documenting completed student awards.
- » Proofreading examination material and worksheets.
- » Creating, updating and adapting documents, spreadsheets and templates.
- » Covering books with protective film and barcoding/stamping them ready for issuing.
- » Renewing memberships to organisations and/or services required by the science department.
- » Maintaining a department birthday list and sending out messages to staff on their birthdays.

## 2. Managing and distributing science resources and equipment

*Science technicians are solely responsible for securely storing material resources, chemicals and equipment for classroom use. These may include dissection material such as eyeballs and plucks through to specialised science apparatus including water baths and hydroponic kits. They ensure chemical resources and equipment are labelled with concentrations and safety data as well as instructions for use. Science technicians create and maintain a range of resources and equipment for current and future use, including PH probes, conductivity meters, refractometers, microscopes, multimeters, oscilloscopes, Van de Graaf and spectrosopes. They research and undertake repairs during work time and when at home or will source and organise external companies to conduct repairs. Science technicians also loan and share physical department resources internally and externally, including to other departments within the school, other local schools and community groups.*

### Storing resources and monitoring stock levels

- » Determining what resources are needed, including through utilisation forecasting, to ensure resources are replenished or obtained in a timely manner.
- » Checking each classroom has enough equipment and stationery such as whiteboard markers etc.
- » Issuing, finding and tracking resources and equipment and ensuring their safe return.

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- » Using or implementing a storage system for departmental resources and files including equipment manuals.
- » Ensuring department equipment is stored away from chemicals.
- » Dismantling, organising and storing equipment when returned after class use.
- » Unpacking and storing resource and equipment orders from suppliers.
- » Securing buildings where science resources and equipment are stored such as preparation rooms and chemical stores, including the prevention of unauthorised access to equipment and chemicals.
- » Setting up an online and hard-copy resource bank for internal science department use.
- » Implementing an inventory system and conducting an inventory count of all science stock, keeping this up to date throughout the year to reflect available chemicals and equipment.

### Creating resources

- » Using science instruments to measure and prepare chemical solutions to ensure fairness for all students.
- » Adapting chemical preparation methods, including minimising usage of chemicals, to remain within budgetary constraints.
- » Creating and preparing biological material for classroom use such as agar plates, ginger beer, microscope slides, dissection material etc.
- » Crafting, building, soldering and assembling resources and equipment for departmental use.
- » Modifying current equipment or resources held in stock to meet teacher needs.
- » Creating, preparing and providing information resources such as presentations, worksheets and assessment material for students.
- » Making bespoke electrical and wooden apparatus for class practical activities.

### Ensuring the functionality and cleanliness of equipment and resources

- » Calibrating, charging, adjusting and testing equipment before class or excursions to ensure functionality and safe operation.
- » Following appropriate cleaning procedures, including sterilisation, the use of specific powders and the creation of chemical reactions, to ensure that equipment and resources are adequately cleaned.
- » Arranging the cleaning or collection of laundry.
- » Providing the necessary living conditions for live specimens whilst in the school, including microbes, locusts, aquaponics, worm farms and beehives.
- » Assessing whether equipment needs servicing.

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- » Sharpening blades including guillotine and dissection blades and scissors.
- » Ensuring learning and departmental environments are clean.
- » Maintaining equipment and resources through regular reviews and the identification of issues, to determine further inspection, selling, discarding, updating, repairing or changing parts as necessary.
- » Labelling and engraving chemicals and equipment.

### **Repairing or organising external specialists to repair equipment and resources**

- » Using prior knowledge to repair equipment and resources.
- » Seeking advice from professionals regarding equipment and resource repairs.
- » Sourcing and organising for an external company to conduct repairs and maintenance.
- » Ensuring other departments replace borrowed equipment that is lost or broken.
- » Liaising with the school caretaker to have electrical equipment checked.
- » Testing and tagging departmental electrical equipment to determine the condition and to ensure safe operation.

### **Transporting equipment and resources**

- » Using personal or school vehicles to collect and drop off resources.
- » Transporting and manoeuvring furniture, resources, packages and equipment within classes and around the school.
- » Carrying and distributing departmental items in classroom laboratories.

### **Enabling wider school and community access to science resources and equipment**

- » Providing resources for use to external groups such as universities and other schools, involving volunteering where necessary to increase external accessibility.
- » Working internally with other school departments to borrow and share resources.



### 3. Procuring resources and conducting financial administration for the science department

*Science technicians are responsible for obtaining resources, chemicals and equipment for classroom use. They will spend time researching and securing the best deals to benefit the departmental budget, often using connections and relationships to source and receive new resources and spare parts. Science technicians assist with the financial operation of the science department, often utilising financial management systems such as Xero, Excel, Hubdoc or a paper-based model to deliver a departmental budget overview and provide expenditure reports.*

#### **Procuring resources**

- » Researching purchase options and obtaining and considering quotes from suppliers to effectively utilise budget allocation.
- » Ordering and purchasing chemicals, equipment, software, text or workbooks and resources for classroom use, either online or in store.
- » Making payments and purchases on behalf of the school using personal funds and claiming reimbursement.
- » Using connections and relationships to source and receive resources from others in the science industry.
- » Receiving resources from local universities and the wider community such as animals and equipment.
- » Sourcing and collecting resources and materials for use in class from the environment or industry locations including hardware stores, butchers and abattoirs.
- » Tracking deliveries and ensuring orders are accurate on arrival.

#### **Invoices, payments, purchases and funding**

- » Processing invoices using a financial management system to record, file and scan data.
- » Ensuring payments and invoices are accurate, paid on time and liaising with the appropriate person when necessary.
- » Making school payments and purchases on behalf of the school using a school credit card.
- » Seeking approval from appropriate authority on expenses over a specified amount.
- » Making department approved payments and/or approving department purchases.
- » Implementing a new budget management system including transferring the budget management system from a paper-based to digital system.

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- » Record keeping including invoices and delivery notes.
- » Providing justification for purchases and presenting this to the head of department.
- » Co-ordinating departmental applications for funding.
- » Working with the payroll officer to ensure invoices for personal reimbursement are received in a timely manner.
- » Liaising with accounts regarding student payments for science resources and following up with teachers when student payments have not been received.

## **Cash**

- » Maintaining a record of student monies, obtained through the sale of resources such as science fair boards, books and award badges and handing into the school office.
- » Maintaining records of and reconciling petty cash expenditure.
- » Storing petty cash.
- » Having access to and using petty cash to make purchases and payments.

## **Providing financial advice, analysis and planning**

- » Preparing and/or assisting with the department's budget.
- » Advising on future resource needs and associated costs.
- » Providing financial advice and figures to aid in department decision-making process.
- » Keeping a record of expenditure and assisting with department financial reports.
- » Monitoring and either making or contributing to decisions on the science department budget.
- » Coding budget spreadsheets for different science fields to forecast future budget allocations.





## 4. Managing science department and school health and safety procedures

*Science technicians are required to have an in-depth knowledge and understanding of health and safety policies, procedures and practices including the Code of Practice, Globally Harmonised System, Safe Methods of Use and Safety Data Sheets as well as any relevant New Zealand legislation, such as Safety and Science/Pūtaiao and Hazardous Substances 2017 Act. Science technicians often have a great degree of responsibility within schools to uphold the safety of students and staff by sharing expertise, contributing to the development of safer operations and ensuring all existing measures are followed.*

### Following and supporting the school's health and safety procedures

- » Adhering to the school specific health and safety policies and procedures.
- » Managing safety issues that arise within the school in an appropriate manner and reporting to the correct authority.
- » Adhering to and ensuring the school is complying with relevant New Zealand legislation.
- » Ensuring that emergency supplies, kits and areas are set up, stocked and in working order.
- » Checking and ensuring departments supply of handwash and dishwashing liquid.
- » Making hand sanitiser for school wide use and/or ensuring schools supply of sanitiser is replenished
- » Acting as a designated staff member to respond to urgent issues within the science laboratory.
- » Managing and ensuring the safe handling and storage of chemicals and equipment.
- » Conducting independent risk assessments and/or ensuring risk assessments are carried out by all staff to assess safety and inform decision making.
- » Identifying, reporting, recording and following up on health and safety hazards and incidents.
- » Adhering to, implementing and updating procedures for hazardous substances, including labelling conventions and warning signage around the school.

### Acting as Health and Safety representative

- » Disposing of chemicals, dissection tools, biological material and hazardous waste safely, including instructing and reminding colleagues of safe disposal practices and organising external collection when necessary.
- » Providing appropriate shoes to students for laboratory activities in the absence of correct footwear.

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- » Maintaining knowledge of student allergies when performing classroom activities such as beekeeping.

### **Providing advice, information and guidance**

- » Providing advice and information on appropriate and/or alternative classroom practical activities and experiments to ensure they are compliant with the applicable health and safety policies and procedures.
- » Educating and explaining the health and safety procedures, policies and practices to school staff and students.
- » Assisting in setting up and managing a system for emergency services by providing a list of chemicals and their locations.
- » Overseeing the use of the school's safety gear such as safety glasses and personal protective equipment, by making sure it is available for experiments and communicating directly with students and school staff to ensure it is being used when needed.

### **Health and Safety administration**

- » Writing and implementing health and safety policies, procedures, processes and systems.
- » Reviewing, updating and adapting school health and safety documents.
- » Preparing, updating and managing the school's chemical registry, including recording the location of chemicals for fire safety regulations and wider school access.
- » Providing and supplying chemical safety information to external companies for chemical freight or disposal.



## 5. Developing, maintaining and sharing relevant knowledge and experience

*Science technicians cultivate and hone their skills and expertise to support the effective functioning of the science department. This is done through internal or external professional development, training, workshops and conferences on topics such as software, equipment repair and health and safety or by expanding their knowledge independently through self-directed learning and research. Science technicians often develop the knowledge of others by assisting, training and sharing their knowledge with both colleagues and associates in external networks using a variety of strategies.*

### **Building personal and professional expertise**

- » Seeking, participating in and arranging travel to attend relevant professional or specialised development.
- » Using the science technician forum and local and international networks for information, ideas and advice in making decisions.
- » Researching necessary and additional guidelines and policies to implement within the science department.
- » Engaging in self-directed learning to set up new specialised equipment, generate ideas, expand and update existing knowledge and inform resource creation and decision making.
- » Keeping up to date with curriculum changes to support the implementation and delivery of assessments and experiments.
- » Seeking science department improvements through observations and comparisons at other schools.
- » Creating and keeping records of information for personal reference and future use
- » Attending an annual performance review.
- » Seeking advice from supervisor about scope of role.

### **Inducting and training new staff**

- » Creating, collating, updating and sending induction documents and emails to new employees.
- » Providing introductory or system training/workshops and/or guidance for new staff.
- » Providing health and safety regulatory advice around experiments for new staff.

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## Building expertise of colleagues and the science technician community

- » Demonstrating and educating colleagues on how to perform certain tasks, experiments and the use of equipment and software.
- » Delivering educational information to colleagues.
- » Coordinating, organising and contributing to the professional development of the regional science technician cluster to share and develop expertise.
- » Providing advice to other departments on best practice and topic ideas.
- » Providing knowledge, advice, training, support, guidance and assistance to colleagues and the wider science technician community.

# 6. Building relationships and communicating with students, colleagues, agencies and the community

*Science technicians play a role in building relationships internally and externally for the school. They build and maintain strong relationships with both students and colleagues and assist in connecting the school to the wider community. They adjust their communication style to suit the party they're speaking to by adding or removing technical jargon when needed and maintaining close working relationships with suppliers.*

## Building relationships with colleagues

- » Building and maintaining relationships with colleagues by effectively managing conflicting demands, assisting with workloads, answering queries, seeking or providing advice and clarifying complex or technical information when needed.
- » Liaising with ground staff to maintain the effective functioning of the school.
- » Resolving workplace issues and contributing to a positive culture.
- » Assisting colleagues in mentally and emotionally demanding situations by listening, calming them down and helping with stress management.
- » Building the confidence of colleagues through encouragement.
- » Meeting with direct supervisor to communicate updates, concerns, issues and progress.
- » Performing acts of kindness, including baking cakes, to improve colleague wellbeing.
- » Organising staff outings.

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## Building relationships with students

- » Creating a safe learning and recreational environment for all students, including the implementation and facilitation of a lunchtime programme initiative to assist vulnerable students.
- » Caring for the physical, mental and emotional wellbeing of students by comforting, calming and offering help when needed, assisting them to the sick bay/nurse or office and informing appropriate persons of student concerns.
- » Communicating and interacting with students and encouraging them to participate in class.
- » Maintaining positive, appropriate and authoritative rapport with students.
- » Checking in with students following a health and safety incident.
- » Providing advice and assisting in the educational and employment pathways for students, including off-site job shadowing.
- » Caring for unwell animals found by students.

## Building relationships with external agencies, professionals and the community

- » Building and maintaining relationships with contractors, parents, science technicians and school suppliers and specialists
- » Being mindful during interactions with external organisations, people and the community to ensure the school's image is upheld.

## Implementing and using communication techniques

- » Adjusting communication style to cater to different people including those with disabilities.
- » Ensuring that barriers to understanding are minimised or prevented where possible, including following up verbal conversations in writing, actively listening and including another person in conversation when necessary.
- » Awareness of non-verbal and body cues when communicating with colleagues/students such as eye rolling or tension.
- » Using universal hand gestures with students and teachers to minimise disruption to class or communicate with ESOL (English as a second language) students.



## 7. Enhancing students' participation and engagement in learning

*Science technicians use a variety of methods to enable students to participate in science and ensure the wider school learning environment is accessible for all learners. They often assist students in and out of class with their projects including the science fair and take a role in removing barriers that might prevent students from participating in the learning. Science technicians enable student engagement and ensure the success of students while working in the laboratory.*

### Removing barriers for students to participate in learning

- » Organising and/or acting as a reader-writer for students in assessments.
- » Working alongside the school in providing Special Assessment Conditions for students.
- » Creating models for topics that would be helpful to aid student learning.
- » Liaising with kaiāwhina about student needs.
- » Generating computer logins for students to access learning material.
- » Personally delivering or organising for an external courier to deliver resources to students' that are completing home-based learning.
- » Providing curriculum related activities suitable for ESOL (English as a second language) and other students with reading difficulties.
- » Assisting and supporting students with special educational needs.

### Supporting students with science activities

- » Assisting students with practical class activities.
- » Co-ordinating extended learning opportunities that students can complete independently outside of class.
- » Helping students with their projects or correspondence work.
- » Having sole responsibility for and teaching small groups of students activities such as onsite stream water quality testing and beekeeping.
- » Circulating in class and modelling practical activities for any students who would benefit from further assistance and to ensure it is carried out successfully and safely.
- » Participating in science classroom activities including class-based role play activity.
- » Adding information that might be of relevance or interest for students to the department display wall.

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## 8. Maintaining and contributing to the development of buildings and grounds

*Science technicians provide input and advice into the development of new or existing buildings on school grounds. They ensure property issues and maintenance needs are reported to the necessary people. Science technicians ensure science department buildings are secured when required and prevent stray animals such as dogs, cats and chickens from freely roaming school grounds.*

### Building developments and maintenance

- » Arranging and/or personally undertaking building repairs or updates and liaising with external companies and school staff regarding property management issues where necessary.
- » Providing ideas and liaising with architects, building consultants, property managers and school management surrounding rebuilds, building specifications and the refurbishment of existing structures while aligning with the storage and chemical handling requirements.
- » Participating in the school's new build committee.
- » Suggesting, coordinating and creating suitable storage spaces.
- » Arranging and using appropriate ventilation in preparation room and storage areas.
- » Building a shed to house agricultural equipment.
- » Advocating for a new code-compliant structure.
- » Engaging with and accompanying a compliance certifier to organise a site visit and obtain a local compliance certificate for the school.
- » Recycling resources to minimise departmental general waste.
- » Assisting in the relocation of all science department resources, equipment and shelving during renovations.

### Security

- » Ensuring necessary buildings are secured when not in use and after hours.
- » Preventing stray animals from roaming freely on school grounds and restraining if necessary.



## 9. Being aware of and supporting bi- and multi-cultural practices

*Science technicians have an important role in creating a school environment that supports and respects the varied cultures of both students and staff. Science technicians contribute to the schools bi and multi-cultural practices in many different ways, ranging from assisting in cultural events and providing information bilingually to educating fellow staff on what may be culturally appropriate. Science technicians work in a range of settings including bilingual and English medium schools.*

### Tikanga and te reo Māori

- » Honouring tikanga Māori when appropriate.
- » Understanding the basic principles underpinning Te Tiriti o Waitangi.
- » Sourcing and supplying bilingual information, including labels on science equipment, resources, posters and health and safety.
- » Providing the opportunity for students to present in te reo Māori.
- » Supplying a karakia and providing context and the value of conducting this for classes prior to a dissection taking place.
- » Using te reo Māori greetings.
- » Sharing knowledge of Māori culture.
- » Researching the Māori translation for English words online, or by speaking to the Māori teacher.
- » Sharing actions taken to promote the use of te reo Māori and foster cultural inclusion in school meetings.

### Cultural Support

- » Being aware of other cultures and adapting one's demeanour as needed.
- » Accommodating all cultural and religious views and values within classroom activities and decorations.
- » Displaying cultural sensitivity and reminding staff of what is culturally appropriate within classroom activities, including during dissections and the removal of offensive material.
- » Assisting and participating in cultural events and activities.
- » Using personal knowledge of different languages to assist ESOL students and ensure their contributions are properly understood.

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## 10. Contributing to the effective functioning of the school

*Science technicians provide a range of support to schools beyond their core department-focused work, helping to keep the school running smoothly and successfully, while also adhering to the school's values and the various policies and practices in place. These tasks support numerous elements of the school's operation, from departmental matters through to wider school staff and students.*

### Supporting school policies, guidelines and values

- » Having an awareness of and adhering to the school's established policies and guidelines.
- » Following and contributing to the school's special character and/or values.
- » Keeping school and sensitive information confidential.
- » Understanding and engaging in training and drills for emergency procedures and ensuring they are followed correctly.
- » Acting as a fire warden and checking laboratories are evacuated and all buildings are clear in an emergency.
- » Participating in first aid training sessions and/or holding a first aid certificate and/or providing and advising on first aid.
- » Understanding the school's behavioural policies for students and notifying appropriate authority of any misbehaviour and unacceptable conduct.
- » Attending, recording minutes, being a member of and advising in school meetings.
- » Informing IT personnel of lost computer equipment.

### Organising and delivering school wide events, activities and excursions

- » Organising events and field trips by arranging equipment and transportation, making bookings, obtaining quotes, liaising with external service providers and preparing and cleaning up.
- » Attending and/or leading school events such as a science fair or open evening.
- » Assisting with sport related activities.
- » Organising, collecting and following up on student permission slips.
- » Assisting teachers in school outings by providing extra supervision, monitoring health and safety and providing food for students when necessary.
- » Acting as a driver for school excursions.
- » Setting up staff morning tea when the usual organiser is away.

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- » Organising flowers, cards and gifts for prize giving, staff birthdays and departures.
- » Leading training sessions for the outdoor aspect of the Duke of Edinburgh Hillary Awards, including creating training booklets and participating alongside students.

### **Managing self and departmental staff**

- » Having a role split across multiple schools and being present where the need and workload is.
- » Adapting work plan to respond to any interruptions, urgent requests, clashes or cancelled practical activities and experiments.
- » Supervising, organising and reprioritising the tasks and workload of other staff members.
- » Conducting performance reviews of another staff member.
- » Advising on the hire of new school staff member.



We **shape** an **education** system that delivers  
**equitable** and **excellent outcomes**

He mea **tārai** e mātou te **mātauranga**  
kia **rangatira** ai, kia **mana taurite** ai ōna **huanga**