

Press Release from the President of the New Zealand Institute of Physics (NZIP) Dr Natalie Plank

After the Ministry of Education's press-release on Thursday the 20th of February on the changes to NCEA level 1 subject list, it is timely for the NZIP to explain its position.

The intention to remove all physics based standards at Level 1 has shocked our physics community. Large numbers of our community have interacted with the NZIP in the last few days and the strength of their feelings about this intention is very clear. In a study survey we conducted, prior to the February 20th announcement, 88% of teachers indicated that specific physics standards should be included alongside the new standards being proposed.

"Our community (both secondary and tertiary) consider the process surrounding this announcement by the Ministry of Education to be troubling. The timing of the announcement is surprising given that the feedback on the Level 1 Trial has not yet closed" states Dr Plank. "This is extremely disappointing."

The NZIP's Education Section has done a detailed analysis of the proposed Science standards. These standards are meant to replace the existing matrix of over 30 specialist science standards. The proposed standards only assess the Nature of Science, e.g. methods and perspectives covering all scientific disciplines, rather than assessing a student's conceptual understanding of the core content, e.g. discipline specific knowledge and skills. But such understanding is essential to talk about science in any meaningful way.

"The NZIP are supportive of the goals of better access to science for more students and we particularly welcome the explicit inclusion of Vision Mātauranga in science level 1. Yet we are concerned at the erosion of the discipline specific tools of science education put forward in this document. Wider participation can only be achieved by empowering all Level 1 students to understand the laws of nature, which in physics involves teaching and assessing conceptual understanding" states Dr Plank.

Our Education Section considers these standards might not support high quality learning opportunities in physics at Level 1 across all schools and might not ensure sufficient conceptual understanding to allow for successful progression to higher levels. We note, with serious concern, that no details have been provided about the structure of learning in physics at higher levels.

Finally, the proposed changes will impose unrealistic demands on professional development for New Zealand's physics teachers - already a scarce and precious resource. The NZIP looks forward to having a productive discussion with the Ministry of Education over the changes to NCEA Level 1 in the coming months so that a positive outcome for all ākonga can occur.

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