

## Information for secondary schools

### National Evaluation Topic (NET) - Term 3, 2019

#### Science Years 9 to 11

Why are we doing this NET?

*The New Zealand Curriculum* advocates students developing scientific processes to help them understand the way scientific knowledge is developed and how science relates to their lives and the everyday context of wider society. *Looking Ahead: Science Education for the Twenty-First Century* highlights how the nature of science (NoS) strand is central to the positive outcomes of teaching science. These outcomes include:

- preparing students for a career using science
- building students' science literacy to enable informed participation in science-related debates and issues as contributing citizens
- developing students' skills in scientific thinking and their knowledge of science as part of their intellectual enculturation.<sup>1</sup>

To gain insights about the provision of science education in New Zealand schools, ERO is evaluating the quality of science teaching and learning in Years 9 to 11.

What does ERO want to find out?

**The focus of this review is on what needs to be done to support improved learning in science.**

The following questions will guide discussions reviewers have with leaders and teachers:

- *What steps do leaders and teachers/kaiako take to determine school priorities for children's learning?*
- *What is the status of science/pūtaiao in terms of the school's valued student outcomes?*
- *How do students view the place of science/pūtaiao in their learning?*
- *Is the NOS treated as an add-on, or integrated with context strands (physical world, material world, planet earth and beyond and living world)?*
- *How are the science capabilities and/or key competencies used to support learners to develop science understanding?*
- *How do people in the school ensure positive science education outcomes for students?*
- *What science/pūtaiao PLD have leaders and teachers/kaiako engaged in?*
- *What are the successes and challenges for science/pūtaiao teaching and learning in the school?*

<sup>1</sup> Gluckman, P. (2011). *Looking Ahead: Science Education for the Twenty-First Century, Annex A: Inspired by Science* (p.15). Retrieved from

<http://www.pmcsa.org.nz/wp-content/uploads/Looking-ahead-Science-education-for-the-twenty-first-century.pdf>

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Information for this evaluation will be collected through school science documentation, interviews with school and/or science leaders and where possible, observations of science-in-action.

It would be helpful if the following sorts of documents are available for review teams when they are on site:

- your school's science curriculum statement
- any policies, procedures and guidelines for science teaching
- school goals for science progress and achievement
- science planning
- internal evaluation to do with the provision of science education
- evidence of science professional development or support given to staff on science teaching
- reports to the board of trustees and parents on student progress in science.

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When are we doing this NET?

Term 3, 2019. ERO has an opportunity to continue this NET in secondary schools that commenced in Term 2

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Which schools are included?

This NET will be undertaken in all ERO reviews of secondary schools during Term 3. In a sample of secondary schools, there will be a more in-depth evaluation of the provision of science education. These schools will be advised of their inclusion in this sample.

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What will happen with the findings?

It is intended that a Science Years 9 to 11 report is released early 2020. At the same time, a separate report for Science Years 5 to 8 will be released (information for this report was gathered in Term 2). The public and schools will be able to access the findings from ERO's website.

ERO will also share its findings with Ministry of Education and Ministry of Business, Innovation and Employment (MBIE); to provide insights about the type of support that could be given to leaders and teachers | kaiako to improve outcomes for learners in science.