

Briefing Note: Meeting with Chris Duggan, CEO and founder of House of Science

To:	Hon Jan Tinetti, Associate Minister of Education		
Cc:	Hon Chris Hipkins, Minister of Education		
Date:	8 October 2021	Priority:	Medium / High
Security Level:	In Confidence	METIS No:	1272488
Drafter:	Chris Arcus	DDI:	9(2)(a)
Key Contact:	Pauline Cleaver	DDI:	
Messaging seen by Communications team:	Yes / No	Round Robin:	Yes / No

Purpose of Report

Your office has requested a briefing note to support your meeting with Chris Duggan from House of Science on the morning of 12 October 2021. The meeting is in relation to the curriculum refresh and science curriculum resourcing options.

Summary

- House of Science (HoS) was developed in Tauranga and now has a number of independently governed branches across New Zealand. House of Science New Zealand has a vision to see every child in New Zealand become scientifically literate.
- Chris Duggan, National CEO and founder, has had a number of meetings with Ministers and Associate Ministers, both in Wellington and in the regions where HoS is working. This Briefing draws on material provided in earlier briefings about HoS.
- You have asked for an official to be present at the meeting. Chris Arcus (chris.arcus@education.govt.nz, cell 9(2)(a)) will be present.

Proactive Release

- a **agree** that the Ministry of Education release this briefing in full once it has been considered by you.

Agree / Disagree.

Release

Pauline Cleaver
Acting Hautū | Acting Deputy Secretary
Te Poutāhū | Curriculum Centre

8/10/2021



Hon Jan Tinetti
Associate Minister of Education

10/10/ 2021

Proactively Released

Background

1. House of Science provides science resource kits and teacher professional development for primary schools.
2. The resource kits include bi-lingual science resource kits, and the governing board reports a significant increase in the use of these.
3. Kits are designed in line with the science strands of the New Zealand Curriculum as well as the five Science Capabilities (gathering and interpreting data, using evidence, critiquing evidence, interpreting representations, engaging with science in 'real life' contexts).
4. There are also connections to literacy and numeracy in particular.
5. The Board's 2019 report (the latest online) indicated there were 309 member schools and 38 Kura Kaupapa Māori in the Hutt Valley, Tauranga, Rotorua, Eastern Bay of Plenty, Wellington, South Waikato, West Auckland, Horowhenua, Wairarapa, Tairāwhiti and Central Waikato.
6. House of Science is supported by a number of organisations including Government agencies. The Ministry of Education does not provide funding support.

New Zealand Student Achievement in Science

7. In earlier correspondence HoS has presented NMSSA data.
8. The Ministry's reporting shows that the 2017 NMSSA results for science are largely consistent with results from 2012.
9. Science achievement at Year 8 continues to be low at 20 percent working at expected curriculum level, compared to 94 percent at year 4.
10. We further note that this overall Year 8 result for science is not consistent with the science outcomes we see for older students. Almost 80 percent of school leavers have participated in science at NCEA level 1, and 63 percent of school leavers attain science at level 1 or above.
11. Māori and Pacific students scored lower than non-Māori and non-Pacific students.

Ministry of Education PLD priorities

12. The Ministry of Education's Professional Learning and Development priorities for English medium settings are:
 - a. Cultural capability;
 - b. Local curriculum design;
 - c. Assessment of learning.
13. For Māori medium and te reo Māori settings they are:
 - a. Mātauranga Māori and te reo Māori;
 - b. Marau a-kura;

c. Aromatawai.

14. Digital fluency remains a priority in all settings.

15. While science or pūtaiao are not specifically mentioned in these priorities they could be the context for work in the priority areas.

Curriculum refresh

16. The New Zealand Curriculum is being refreshed to make sure it is bicultural, inclusive, clear and easy to use – so that every ākonga can learn, develop and make progress in the things that really matter to them now and for their future.

17. The refresh will be phased over five years, to help to make it more manageable for schools to implement the refreshed curriculum. Schools, ākonga and whānau will be supported through the change.

18. The refresh of the New Zealand Curriculum (NZC) will include a focus on the science learning area. As part of the refresh the Ministry will co-design implementation and further support with the sector.

Other Ministry support for science

LEOTC

19. Learning Experiences Outside the Classroom (LEOTC) is a Ministry of Education curriculum support project. It supports community-based organisations to provide students and ākonga with learning experiences that complement and enhance their learning, in alignment with the national curriculum (the New Zealand Curriculum, Te Marautanga o Aotearoa and Te Whāriki). For 2022 it is being redeveloped as Enriching Local Curriculum (ELC). A Request for Proposals is likely to be released on the Government Electronic Tenders Service in October. This redevelopment includes better alignment with the refresh priorities of a more bicultural and inclusive curriculum.

20. Providers of LEOTC include zoos, museums and science centres which hold significant resources and expertise used to enrich curriculum learning within a unique Aotearoa/New Zealand context. They are authentic, hands-on, interactive learning experiences that complement and enhance curriculum learning. Providers and schools, kura and early learning settings work in partnership to ensure that programmes meet the learning needs of students and ākonga and support curriculum teaching and learning. Over a number of years various funding sources have been amalgamated and the specific amount funded for science is not quantified. ELC will have a broader cross curriculum and capabilities focus, rather than supporting particular learning areas.

21. The Ministry funding for LEOTC is \$5.2m p.a. This level of funding will continue for ELC when the new contracts commence in July 2022.

Sir Paul Callaghan Science Academies

22. As part of its contribution to A Nation of Curious Minds He Hihiri I Te Mahara, the national strategic plan for science in society, the Ministry funds the Sir Paul Callaghan Science Academies for primary school teachers. This PLD has been happening since 2015.

23. The Ministry funds the Academies \$50,000.00 pa.

Te Kete Ipurangi

24. Science Online on TKI provides research, resources, ideas and inspiration to help students investigate, understand and explain our natural and physical world and the wider universe.
25. The resources help with assessment of student learning needs; insight into the nature of science as a human endeavour helping us make sense of the world; ways to teach science; content resources and rich stories; and connections to see science at work in the world.
26. The NZ Senior Secondary Curriculum Guide for Science helps teachers create teaching and learning programmes for students at curriculum levels 6, 7 and 8.

Working with MBIE and the University of Waikato – Science Learning Hub

27. The Ministry liaises closely with the Curious Minds and New Zealand Space Agency teams at MBIE contributing educational advice. As part of this we also work with the MBIE-funded Science Learning Hub being delivered by the University of Waikato. Among other supports the Hub is digitising a range of Ministry resources to make these more widely available to teachers. Hub resources are a key part of the COVID-19 distance learning support in science.

Key Risks and Benefits

28. HoS might seek funding from the Ministry of Education. HoS could be encouraged to apply for funding by taking part in the ELC Request for Proposals to be released in October 2021.
29. The HoS website includes positive comments from users.

Next Steps

30. If the ELC procurement plan has been approved by the time of your meeting, you could refer HoS to the Government Electronic Tenders Service Request for Proposals.
 31. HoS could be advised to monitor the refresh of the national curriculum through [Refreshing The New Zealand Curriculum – Education in New Zealand](#)
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