## Not science as I know it

Alison Campbell looks at the Accelerated Christian Education curriculum.



**B**Y ACCI-DENT, I came across the curriculum document for Accelerated Christian Education (ACE), which

provides teaching and learning materials to parents who are homeschooling their children. New Zealand students who complete the programme right through to Year 13 gain university entrance.

Home Schooling NZ gives parents advice about the ACE programmeme, but makes it clear that HSNZ does not work for Accelerated Christian Education or sell their teaching and assessment materials. However, I was startled to see the following listed by HSNZ as one of the "distinctives" [sic] of the ACE programme:

Each student is taught from a biblical perspective developing critical thinking skills that will enable them to discern what is truly "...the good and acceptable and perfect will of God." (Romans 12:2)

Having had a fair bit to do with the development of the Science section of the current national curriculum document, specifically, the Living World component, I was naturally interested in seeing how ACE handles a science curriculum. The answer is, poorly. In fact, I feel that it's most unfortunate that the ACE science programme is officially recognised here, given statements from Sir Peter Gluckman (the PM's Chief Science Advisor) about the importance of science and science education<sup>1</sup>. For example, from the curriculum overview material for Grade 1 students we learn that the student:

- Pronounces and learns new vocabulary words as they are defined and used in the text.
- Discovers God's wisdom as he<sup>2</sup> learns about God creating Earth...
- Learns about the design and care of the human eye and ear; high, low, soft and loud sounds.
- Learns about the importance of personal health – clean teeth and hands.
- Gains a respect for God as he learns about God's wisdom, goodness, kindness, and that all things belong to God.
- Reads stories and answers questions about God's creation.
- Continues to build eyehand coordination by drawing shapes, irregular shapes, and directional lines.

That's it.

In contrast, the New Zealand Curriculum document has a number of subject-specific achievement aims for students at this level, in addition to those relating specifically to the nature of science. For example, students in their first year or two of primary school should:

- Learn about science as a knowledge system: the features of scientific knowledge and the processes by which it is developed; and learn about the ways in which the work of scientists interacts with society.
- Appreciate that scientists ask questions about our world that lead to investigations and that open-mindedness is important because there may be more than one explanation.
- Explore and act on issues and questions that link their science learning to their daily living.

Remember, that's in addition to the achievement aims for biology (Living World), chemistry (Material World), earth sciences (Planet Earth and Beyond), and physics (Physical World).

And so it continues. I mean, how could this (from the ACE objectives for Grade 3) be construed as science by anyone assessing the document?

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"Studies Bible topics such as Jesus' return; sin, death, and the curse; man's freedom to choose to love and obey God."

## Or this?

"Discovers the Bible to be the final authority in scientific matters."

Science, it ain't. It would appear that helping students to gain and enhance critical thinking skills isn't on the curriculum either – after all, teaching students to look to authority for the answers runs completely counter to encouraging critical thinking and teaching students how to weigh up evidence.

While I haven't read all the Packets of Accelerated Christian Education (PACEs) available for the curriculum, partly because I am not going to buy them in order to do so, I have read through the samples available online<sup>3</sup>. Among other things, the materials I viewed encouraged rote learning rather than deep, meaningful understanding of a subject – a long way indeed from current best-practice models of teaching and learning.

However, others have read ACE's PACE documents, and have been extremely critical of them. The *Times Education Supplement*, for example, was startled to find that ACE materials available in 1995 contained the claim that the Loch Ness Monster has been reliably identified and seems to be a plesiosaur. (It seems this reference has since been removed from new textbooks published in Europe.)

The TES also addressed some rather trenchant comments to the

UK educational body responsible for giving the ACE curriculum equivalent status to O and A level examinations. Perhaps the NZ equivalent of that body should give the ACE documents a closer second look.

Alison Campbell is a lecturer in the Biological Sciences Department at Waikato University. She writes Bioblog as a way of encouraging critical thinking, looking at scientific papers that are relevant to the Level 3 curriculum and Scholarship, and fielding questions from readers.

## **Notes and References**

1. www.pmcsa.org.nz/blog/stemming-the-tide-the-need-to-improve-science-education-not-abandon-it/

2. No female pronouns used, that I could see. (No room for female scientists in this curriculum, either – students are introduced to "early men in science".)

3. www.aceministries.com/ curriculum/?content=fourthEd