



THE AUSTRALIAN

Kids get Asian lesson in maths

JUSTINE FERRARI THE AUSTRALIAN APRIL 12, 2014 12:00AM

DOESN'T ADD UP	 Singapore	 Australia
Learning about fractions	Year 2	Year 3
Halves and quarters	Year 2-3	Year 3
Fraction of a whole	Year 3	Year 4
Equivalent fractions	Year 3	Year 5-6
Adding fractions	Year 3	Year 5-6
Subtracting fractions	Year 4	Year 4
Mixed numbers	Year 4	Year 5
Improper fractions	Year 4	Year 6-7
Product of a fraction		

Source: Scholastic

By Year 6 Singapore students are studying in maths what Australian schools generally do not teach until the first years of high school. Source: TheAustralian

SCHOOLS in Australia will be able to teach maths Singapore-style with the release next month of primary textbooks that set out the teaching methods responsible for taking Singaporean students to the top of international tests.

The books for Years 1 to 6, published by Scholastic Australia, have the official endorsement of the Singapore Ministry of Education, which has to approve textbooks used in classrooms, and have been linked to the Australian Curriculum.

The education manager at Scholastic Australia, Christine Vale, said that unlike Australian textbooks, the Singapore books outlined teaching strategies. As reported last week in The Australian, key concepts are taught to Singapore students at least a year earlier than in Australian schools. The books, called Prime Mathematics, cover the same topics as the Australian curriculum but move through the content faster and in greater depth.

Ms Vale, a former primary school teacher with a masters degree in maths, said the Singapore approach involved teaching a whole topic in depth in the same unit, rather than the scattergun approach of the Australian curriculum, which spread the same topic out across different years.

One example is fractions. The unit talks about the numerator and denominator and uses that understanding to teach equivalent or lowest-common-denominator fractions, then uses that knowledge to add fractions, and then to add fractions with different denominators.

“In our curriculum, that goes from Year 3 to 6 but in Singapore they do it in Year 3 in just one year in one topic, in small steps so it makes absolute logical sense,” she said.

“They don’t have Foundation (prep year), so kids are little older when they start school in Singapore but even in Year 1 they do in one year what we would do in Foundation, Year 1 and Year 2.”

By Year 6 Singapore students are studying in maths what Australian schools generally do not teach until the first years of high school.

“I think what we have done in Australia is tried to make it easier for the kids by delaying some things. Whereas we would have taught adding fractions with different denominators in lower years of school previously, we’ve moved it up to higher year levels because the perception is it’s too hard for students,” she said.

Ms Vale said the Singapore approach taught students different strategies for solving problems, and made problem-solving a central part of the teaching.

After a new concept is taught students practise it, teachers assess how well they have grasped it and students are asked to use the knowledge to solve a real-world problem.

The national executive of the Australian Primary Principals Association was impressed after a briefing on the textbooks. President Norm Hart said the system would enable kids to gain a much deeper and better understanding of mathematical content and ways of working.

Share this story

Facebook ([http://facebook.com/sharer.php?u=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356&t=Kids get Asian lesson in maths](http://facebook.com/sharer.php?u=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356&t=Kids%20get%20Asian%20lesson%20in%20maths))

Twitter ([https://twitter.com/intent/tweet?url=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356&text=Kids get Asian lesson in maths](https://twitter.com/intent/tweet?url=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356&text=Kids%20get%20Asian%20lesson%20in%20maths))

LinkedIn ([http://www.linkedin.com/shareArticle?mini=true&url=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356&title=Kids get Asian lesson in maths](http://www.linkedin.com/shareArticle?mini=true&url=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356&title=Kids%20get%20Asian%20lesson%20in%20maths))

Google (<https://plus.google.com/share?url=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356>)

Email ([mailto:?body=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356&subject=Kids get Asian lesson in maths](mailto:?body=http://www.theaustralian.com.au/national-affairs/policy/kids-get-asian-lesson-in-maths/story-fn59nlz9-1226881419356&subject=Kids%20get%20Asian%20lesson%20in%20maths))

A lesson learnt from Singapore

THE AUSTRALIAN APRIL 15, 2014 12:00AM

IN a global economy, learning from the success of other nations makes sense. Maths teaching in Australia should receive a boost when new textbooks are released next month setting out how the subject is taught to primary school children in Singapore. The books for Years 1 to 6, to be published by Scholastic Australia, will be linked to the Australian curriculum and endorsed by the Singapore Ministry of Education.

As The Australian reported recently, key maths concepts such as multiplication, division and simplifying fractions are taught to students in Singapore at least one year earlier than in Australia. A report comparing the Singapore and Australian curriculums, commissioned by the Australian Curriculum Assessment and Reporting Authority, found Singapore schools spent twice as much time on basic operations and geometry in the first few years of school and had a greater focus on problem solving.

There is no disputing the success of Singapore and other east Asian nations in teaching maths or the importance of giving children the best possible start in basic subjects early in their school lives. In the most recent OECD test of 15-year-olds, Singapore ranked second in the world in maths, with Australian students in 19th place. The lack of students proceeding to higher maths study is a problem in Australian schools and universities, contributing to a serious shortage of engineers and maths teachers.

Student textbooks need to cover the prescribed curriculum. For this reason, the review headed by professor Ken Wiltshire and Kevin Donnelly should look carefully at the lessons to be learnt from Singapore in maths teaching. It needs to determine whether the approach set out in the texts is worth adopting nationally.

Education authorities should be encouraged that the national executive of the Australian Primary Principals Association was impressed after a briefing on the textbooks. President Norm Hart said the system would enable children to gain a deeper and better understanding of mathematical content and ways of working. Maths specialists have noted that the Singapore approach involves teaching whole topics in depth in the same unit. The Australian curriculum takes a more scattergun approach, spreading the same topic across different years as children mature.

The publishing venture has also drawn attention to the role of textbooks in schools at a time when parents have noticed their absence in subjects such as English and history. Depending on the core content recommended by the national curriculum review, comprehensive textbooks for primary and secondary level could become an essential part of education reform. Such resources could provide a thorough grounding in aspects of the humanities that have received scant attention in recent years, such as spelling, grammar and narrative history, for example.

Australian children are as intelligent as any in the world. They deserve textbooks that present the most user-friendly, logical approach for mastering vital concepts under an improved curriculum, taught by teachers with the best training and support.

Share this story

Facebook ([http://facebook.com/sharer.php?u=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495&t=A lesson learnt from Singapore](http://facebook.com/sharer.php?u=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495&t=A%20lesson%20learnt%20from%20Singapore))

Twitter ([https://twitter.com/intent/tweet?url=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495&text=A lesson learnt from Singapore](https://twitter.com/intent/tweet?url=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495&text=A%20lesson%20learnt%20from%20Singapore))

LinkedIn ([http://www.linkedin.com/shareArticle?mini=true&url=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495&title=A lesson learnt from Singapore](http://www.linkedin.com/shareArticle?mini=true&url=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495&title=A%20lesson%20learnt%20from%20Singapore))

Google (<https://plus.google.com/share?url=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495>)

Email ([mailto:?body=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495&subject=A lesson learnt from Singapore](mailto:?body=http://www.theaustralian.com.au/opinion/editorials/a-lesson-learnt-from-singapore/story-e6frg71x-1226884252495&subject=A%20lesson%20learnt%20from%20Singapore))