



Queensland Science Teacher

Science Teachers' Association of Queensland

Volume 41 Issue 4

An Inquiry Sequence for Interactive Simulations

David Geelan & Xinxin Fan

Sorting the Stones from the Gems

Maria Barrett & Robyn Bull

Soil in Ancient Egypt

Alisa Bryce



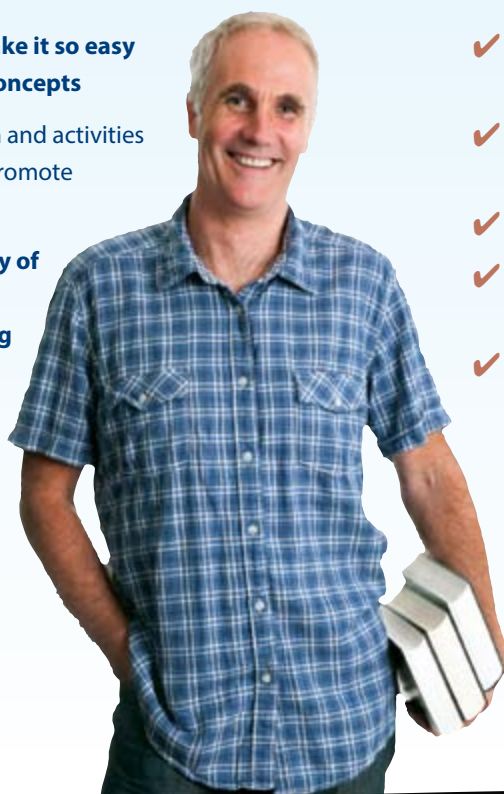


“They make my teaching easier and more exciting. My students also said how much they enjoy using the workbooks.”

*Karyn Negus, Coordinator of Biology,
St Joseph's College, Brisbane*

WHAT THE TEACHERS SAY

- ✓ **The great visuals make it so easy to explain difficult concepts**
- ✓ Data-driven approach and activities requiring modeling promote critical thinking
- ✓ **The extensive variety of activities caters for the different learning styles in my classes**
- ✓ I really love the well-thought-out support resources, they save me so much time



WHAT THE STUDENTS SAY

- ✓ **Each activity focuses on one idea, so it's really clear to me**
- ✓ The excellent diagrams make me really interested in the topics
- ✓ **It's easier and faster to learn**
- ✓ Related information is easy to find
- ✓ **Questions throughout provide me with great exam practice**



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15 January 2015

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Table of Contents

President's Report	2
Tony Wright	
Editor's Request	3
Angela Harper	
In the News	4
An Inquiry Sequence for Interactive Simulations	6
David Geelan & Xinxin Fan	
Amazing Space	9
Paul Floyd	
Sorting the Stones from the Gems	10
Maria Barrett & Robyn Bull	
Soil in Ancient Egypt	12
Matthew Crank	
Queensland Science Contest	14
Jackie Mergard	
QUT's 2015 Vice Chancellor's STEM camp	19
Anne Brant	
Blast from the Past	21
Buttons by Trevor G. Appleton	
Senior Science Conference Program	22

In the News

In this section, we summarise some of the major media stories covering science education in the previous quarter. We welcome your contributions via Twitter, Facebook and email.

Linking Australian apps to the curriculum

Dr Alison Sammel, a Griffith University academic, created a website that linked Australian educational apps to the Australian Curriculum. The Teaching with Apps website was designed and developed to illustrate how teachers can use these Australian apps to teach across different learning areas and different year levels. Sammel started with Grows@Griffith. She breaks down the app by writing lesson suggestions and plans, as well as outlining key strategies that seek to create a more scientifically literate community.

Rebecca Vukovic, EducationHQ, 31 August 2015

Read more:

<http://au.educationhq.com/news/32519/linking-australian-apps-to-the-curriculum/>

Perth mum pushes for better space education in Australia

Brenda van Rensburg developed Spacetripreneurs, a space camp style program for Aussie kids aged 8-13 with hopes to engage our own future space leaders. This followed a visit to NASA when she won the 'space fan Lotto', earlier this year. Spacetripreneurs offers a bit of everything; from environmentally friendly rocket building, to building recycled robots and computers. It also has kids questioning what is really out there in space and how we can actually find it.

It is currently a school holiday and weekend program and while the classes are restricted to work around school at this stage, Brenda hopes eventually it would be taken seriously as a subject.

Natasha Christian, The West Australian, 31 August 2015

Read more:

<https://au.news.yahoo.com/thewest/a/29395634/perth-mum-pushes-for-better-space-education-in-australia/>

Australia gets a new science minister

Christopher Pyne was sworn in as the new Minister for Industry, Innovation and Science. Working with Pyne will be assistant ministers Karen Andrews (science) and Wyatt Roy (innovation).

Many Australian researchers say they hope Pyne's appointment will mark a turn in policy under Turnbull. Abbott had drawn fierce criticism from many in Australia's scientific community as a result of his moves to make deep cuts in nonbiomedical research budgets, and to weaken climate and environmental protection policies.

Leigh Dayton, Science, 21 September 2015

Read more:

<http://news.sciencemag.org/scientific-community/2015/09/australia-gets-new-science-minister>

Shorten pledges a total AU\$2.5b for future jobs with focus on STEM

Shorten announced plans to invest a further AU\$31 million into the education sector, prioritising study in science, technology, engineering, and mathematics (STEM) at Australian universities, as well as coding in schools. Shorten previously condemned the Abbott government for not placing a greater focus on introducing coding to schools as part of the 2015 Budget.

"The Committee for Economic Development of Australia (CEDA) published its major research report "Australia's future workforce?" earlier this year, calling on Australians to ensure that the nation is technologically ready for the workforce of the future. According to the think tank, more than five million jobs -- almost 40 percent of Australian jobs that exist today -- have a moderate to high likelihood of disappearing in the next 10 to 15 years, citing technological advancements as the reason."

Asha Barbaschow, ZDNet, 21 September 2015

Read more:

<http://www.zdnet.com/article/shorten-pledges-a-total-au2-5b-for-future-jobs-with-focus-on-stem/>

2015 Royal Society Winton Prize for Science Books: the finalists reviewed

The prize celebrates outstanding science books from around the world. The prize was originally created in 1998 with the aim of encouraging the reading, writing and publishing of good science books that were accessible to the public. Entries are open to any book published in the last year that can be purchased in the UK.

This year six great books have made the short-list:

- The Man Who Couldn't Stop by David Adam
- Adventures in the Anthropocene: A Journey to the Heart of the Planet we Made by Gaia Vince
- Smashing Physics: Inside the World's Biggest Experiment by Jon Butterworth
- Life's Greatest Secret: The Story of the Race to Crack the Genetic Code by Matthew Cobb
- Alex Through the Looking-Glass: How Life Reflects Numbers and Numbers Reflect Life by Alex Bellos
- Life on the Edge: The Coming of Age of Quantum Biology by Johnjoe Mcfadden and Professor Jim Al-Khalili

George Aranda, ABC Science, 25 September 2015

Read more:

<http://www.abc.net.au/news/2015-09-23/2015-winton-prize-for-science-books/6792404>

Prime Minister's Prizes for Science announced

Six Australians were awarded Prime Minister's Prizes for Science and will share in \$700 000 in prizes. The recipients of the Prime Minister's Prizes for Excellence in Science Teaching were awarded to:

- Dr Ken Silburn, of Casula High School in Sydney's south-west (Secondary Teaching)
- Rebecca Johnson, from Windaroo State School in Queensland (Primary Teaching)

Professor Ian Chubb, Australia's Chief Scientist, and Prime Minister Malcolm Turnbull spoke at the Awards Ceremony.

SBS News Online, 22 October 2015

Read more:

<http://www.sbs.com.au/news/article/2015/10/22/prime-ministers-prizes-science-announced>

Visa scheme fails to ease shortage of maths, science and language teachers

A Victorian state government visa nomination scheme designed to ease acute shortages of maths, physics, science, language and special education teachers resulted in only 15 successful applications over the last two years. Being nominated by the Victorian government helps expedite applications and gives the successful teachers five more points on their Commonwealth skilled migrant visa application.

Many western countries, including England, are facing similar shortages of maths and science teachers, which makes it difficult to attract suitable candidates willing to migrate. The problem is rapidly escalating, thanks to a rising population and a cohort of maths and science teachers nearing retirement.

Kate Nancarrow, The Sydney Morning Herald, 19 October 2015

Read more: <http://www.smh.com.au/national/education/visa-scheme-fails-to-ease-shortage-of-maths-science-and-language-teachers-20151015-gk9v42.html#ixzz3q1bc4XBr>

Neuroscientist tapped as Australia's chief scientist

Neuroscientist, Alan Finkel, will be Australia's next chief scientist. Finkel is the president of Australia's Academy of Technological Sciences and Engineering and former chancellor of Monash University in Melbourne. "Two priorities, Finkel says, are to boost Australia's poor innovation record and set the nation on the road to a fossil-free future. He will build on his predecessor's efforts, Ian Chubb, to promote STEM education and push for a national science and education strategy."

Leigh Dayton, Science, 27 October 2015

Read more:

<http://news.sciencemag.org/asiapacific/2015/10/neuroscientist-tapped-australia-s-chief-scientist>

Webinar: Science Investigations

3:30-5:00pm Tuesday, 1st March

One session: \$34 for members; \$50 for non-members

The online seminar will provide teachers with a model of how to facilitate student-led investigations in their classrooms and resources. By the end of the session you will have confidence to address the areas beyond content in the curriculum. The webinars will provide teachers from all over Queensland, including regional and rural areas, the opportunity to participate.



For more information visit: <http://www.staq.qld.edu.au/beyond-content/>

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