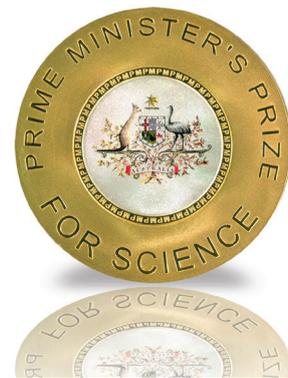




Australian Government

THE PRIME MINISTER'S PRIZES FOR SCIENCE



SUZY URBANIAK

PRIME MINISTER'S PRIZE FOR EXCELLENCE IN SCIENCE TEACHING IN SECONDARY SCHOOLS



Turning students into scientists

Geoscientist Suzy Urbaniak combined her two loves—science and education—by becoming a science teacher 30 years after finishing high

school. But she couldn't believe it when she saw how little the teaching styles had changed over the years.

"I decided then that I wanted to make a difference. I wanted to turn the classroom into a room full of young scientists, rather than students learning from textbooks," Suzy says.

Starting out as a geoscientist, Suzy found that while she knew all the theory from school and university, she didn't have any hands-on experience and didn't feel as though she knew what she was doing.

She realised there needed to be a stronger connection between the classroom and what was happening in the real world, out in the field, and took this philosophy into her teaching career at Kent Street Senior High School.

"The science in my classroom is all about inquiry and investigation, giving the students the freedom to develop their own investigations and find their own solutions. I don't believe you can really teach science from worksheets and text books."

For her contributions to science teaching, and inspiring our next generation of scientists, Suzy Urbaniak has been awarded the 2016 Prime Minister's Prize for Excellence in Science Teaching in Secondary Schools.

Through the teaching program she developed known as Centre of Resources Excellence (CoRE), Suzy makes sure her students are equipped with the right skills and knowledge to take on a variety of career pathways in science and engineering. She treats the classroom as a workplace, and the students as young scientists.

"It makes my day when my students walk into my classroom and tell me it doesn't feel like they're in school—it feels like they're coming to work."

Suzy's students come to class and work collaboratively in groups, solving problems together that have a real-world context, such as geohazards, dryland salinity, or feral animals in the environment. They then head out on field trips to better understand how what they've learned applies to the real world. She calls this learning in #therealclassroom.

Wherever possible, she works her passion for geoscience into her classes. She's always had a love for rocks and volcanoes, ever since she was a kid growing up in Melbourne, exploring the western volcanic plains of Victoria.

Over the past 10 years, Suzy has run 45 field trips throughout Australia and internationally. She's taken her students to World Heritage sites including Shark Bay to study the stromatolites, and biodiversity hotspots such as the Fitzgerald River National Park.

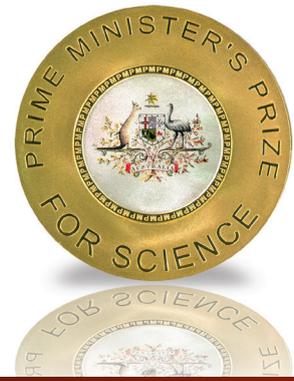
"Most importantly, we go to working mine sites where the students interact with people who work at the coalface, which demonstrates the career paths that science and engineering can take them on and provides quality networking opportunities."

"Our students are great learners; we just need to provide them with the best style of learning. My most disengaged students have become engaged when they are doing hands-on work, when their learning is being facilitated, rather than being taught out of textbooks. You can almost see the lightbulb switch on when they're doing these investigations in my classes.

"I'm hoping that by engaging my students within the scientific field, we're going to have a great workforce beyond 2025."

And she's already seeing great results, with every single one her of students in 2015 finding a job at the end of their tertiary studies.

Suzy wants to take her CoRE program out to the regions, developing sister schools in the Pilbara, the Goldfields, as well as metropolitan schools. She aims to ensure the students are aware of the scientific and technological engineering jobs that are available in Western Australia to support the resources and environmental sustainability industries of the future.



Career profile, Ms Suzy Urbaniak

QUALIFICATIONS

2003	Diploma of Secondary Education, Edith Cowan University
1984–1988	Bachelor of Science (Honours) (Geology), Australian National University

CAREER HIGHLIGHTS

2016	Educator of not-for-profit We Connect the Dots Australia Chapter, which plans and delivers STEAM (science, technology, engineering, arts, maths)-based learning activities to West Australian teenage students	2011	Runner-Up Teacher of the Year, Department of Education, WA
2016	Finalist, Innovation in Teaching Award, Sangora Education Foundation	2009	Exemplary Teacher Award, Canning District
2016	Implemented CoRE (Centre of Resources Excellence) teaching model for Years 7–10, through approved entry status	2008–ongoing	Introduced and supervised the Science Engineering Challenge to Year 9 Academic Extension students, with Australian Finalists in 2011
2015	Highly Commended, The Prime Minister's Prize for Science for Excellence in Science Teaching in Secondary Schools	2006–ongoing	Conduct professional development days for teachers across WA to expose them to examples of relevant and authentic Earth Science learning activities
2015	Established Boornak Madadjiny to engage Aboriginal youth in Science	2006–ongoing	Plan and lead 45 student field trips across Western Australia, Victoria and overseas (Hawaii, New Zealand, Iceland and Norway)
2015	Duke of Edinburgh Award, Award Leader for Kent Street Senior High School	2005–ongoing	Contributed to design of the Earth and Environmental Science Course of Study for WA and the Earth Science Australian Curriculum Course
2014–ongoing	Promoting Aboriginal engagement in STEM, with Chevron	2005–2011	Implemented the Petroleum Club Challenge for Year 10 Academic Extension Students, gaining two state titles
2014, 2015	Tutor, Australian Earth Science Olympic team summer school	2004–ongoing	Secondary School Teacher, Kent Street Senior High School, Perth
2014	Inaugural WIMWA Award, Women in Mining and Resources, Western Australia (WA)	1988–1995	Geologist, Newcrest Mining
2014–ongoing	Chair, WA Branch, Australian Institute of Geoscientists	1986	Priscilla Boh Prize for Top Third Year Female Science Student, Australian National University (ANU) (shared)
2013–ongoing	Australian Teacher Champion, Scootle Community	1986	Ampol Award for Top Third Year Geology Student, ANU
2013–ongoing	With Curtin University, launched the Kent Street Mining Challenge to promote the resources industry to primary school students	1985, 1986	Mining and Metallurgy Prize for Top Geology Student, ANU
2011–ongoing	In collaboration, developed the biennial Kent Street Women in Mining Event for female students and professional women from the resources sector	1985	Prize for Top Second Year Geology Student, ANU
2011, 2014, 2015	Top school in Western Australia for Earth and Environmental Science		

Further reading

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