



In celebration of World Teachers' Day the Teachers Registration Board of Tasmania is proud to showcase Tasmanian teachers.

Taroona High School Students observed the recent Victorian earthquake in real time, through their participation in the Seismometers in Schools Network, an outreach education program run by the Australian National University.

The program aims to increase awareness of earth science and earthquakes, allowing secondary school students across Australia to participate in an international research experiment.

STEM Leader at Taroona High School, Dr Gillian Wallace, said that Taroona High, along with Lilydale District School in the state's north, contribute to the seismometer repository as part of a 42-school network.

"We have a device that sits under our building and detects motion through an electrical signal that is transmitted onto a large screen television in the Science area and through to the ANU.

"Some students walking past the screen saw some lines on the graph that were starting to go a little bit crazy.

"So students and teachers then gathered around and watched the earthquake as it was picked up by the seismometer. "Our students love that type of real-life learning," Dr Wallace told ABC Radio Hobart.

"Our teachers have been able to carefully build the learning sequence to cater for students with a range of passions, interests and abilities."

Grade 9 science students at the school are challenged to explain global features and events in terms of geological processes and timescales. They apply their understanding of energy and forces to global systems such as continental movement.

"The learning sequence using the seismometer and the subsequent related learning is extremely engaging for students because teachers use real-time, real-life learning experiences," Dr Wallace said.

"Our teachers have been able to carefully build the learning sequence to cater for students with a range of passions, interests and abilities.

"Students work with real scientific data that has been collected at our school with our seismometer to build a structure using seismic design principles.

"Learning about the structure of the Earth is a critical element in detecting earthquakes as the different types of waves can also be used as a diagnostic tool to understand what we cannot see inside the Earth.

“Seismic waves (the waves of energy that travel through the Earth as a result of an earthquake) can tell us a lot about the internal structure of the Earth because they travel at different speeds in different materials,” Dr Wallace said.

Students are given the opportunity to transfer their understanding of how wave energy from earthquakes impacts on people who live in earthquake-prone zones. This includes learning about seismic design principles for buildings and using those principles to build an earthquake-proof structure which is then tested on a shaker table to simulate a real earthquake.



“It is wonderful to see teachers using the seismometer and making authentic links directly with the technology,” Dr Wallace said.

“Students then get to analyse the real scientific data, giving them a great insight into a very exciting career path.”

“Having the seismometer has also made it easier to make direct connections with scientists working in seismology as well as related fields. For example, we have had the opportunity to work with a local scientist who uses a clever technique using a radio-telescope that can be used to track continental movement.



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