

Pilbara school celebrates culturally responsive STEAM project



By Shane Wilson
Principal, Marble Bar Primary School

This year's national reconciliation theme is More than a Word. Reconciliation takes action.

Western Teacher will be showcasing events and projects that are occurring at WA schools that demonstrate Reconciliation in Action.

Students at Marble Bar Primary School are immersed in a reconciliation celebration of Indigenous culture through an exciting, cutting-edge Science, Technologies, Engineering, Art and Mathematics (STEAM) project.

Marble Bar PS, a partner school in the Department of Education (DoE) STEM Enterprise Project, featured their Virtual Walkthrough Gallery of Australian Animals at this year's WA Resources Technologies Showcase.

The school embraces opportunities for Aboriginal elders, industry leaders and organisations to engage two-way as part of an integrated, culturally-responsive and enterprising school community.



Cultural knowledge, skills and aspirations are imparted by Aboriginal elders and strategically aligned to STEAM capabilities including creativity, cultural intelligence, problem-solving and teamwork.

The Department of Jobs, Tourism, Science and Innovation had this to say about the Marble Bar PS project: "MBPS has integrated CSIRO's Two-Way Science Integrated Learning Program utilising virtual reality equipment to link Western concepts with Aboriginal ideologies in embracing more opportunities for the Aboriginal curriculum".

At the Perth Convention and Exhibition Centre in June, the Marble Bar PS innovation team, including Principal Shane Wilson, STEAM Coordinator George Pantazis and Marc French, operations manager from the school's industry partner Airborne IT, welcomed over 663 participants including staff and students from over 50 Western Australian schools, DoE corporate executive and industry partners.

In addition, 200 virtual international guests from Japan, UK, EU, New Zealand and the USA interacted with local Marble Bar students with a stunning and live 3D Marble Bar world gallery that has sparked significant local and global interest.

One collegiate principal stated: "Your culturally responsive approach to STEM is being shared across the state and world and will be a springboard for more projects in this area. Your school is paving the way for the future".

Students depicted their two-way STEAM concepts on paper and scaled up canvas, guided by community leaders from the

local Indigenous community. Students then transformed their work into 3D images for a Virtual World Gallery using innovative techniques including Google's Tilt Brush design program.

Learning support and STEAM coordinator George Pantazis told Australian Teacher magazine that the project has been the highlight of his career so far.

"It has been an amazing journey," he said.

Year 9 students from Bob Hawke College's media unit were involved in the showcase, with outstanding quality seen in the students' work.

Julie Whalebone, Marble Bar resident and parent to some of the students involved in the VR World Gallery commented on the positive impact the project had for not only her children's education but also for showcasing Aboriginal art and culture to the world.

"It has been great to see my kids and their fellow students going through an engaging and hands-on educational journey to create these amazing pieces of work," she said.

"This initiative has sparked curiosity and passion amongst our students while also encouraging learning about and deeper understanding of our rich Aboriginal culture and history.

"I hope we can see more of these types of projects in the future".

Mr French originally introduced virtual reality to the school in 2020.

The Marble Bar PS community has now taken this innovation to a new level by building a virtual reality art gallery on Altspace VR – a well-known, premier online place to view and attend events in 3D.

This is being used to preserve and show-case the area's critically endangered local Indigenous language, Nyamal.

The school is building on the impact of its culturally responsive STEAM on students from around the globe by collaborating with school colleagues and virtual developers in Japan, UK and New York.

The school and Airborne IT are welcoming opportunities for embarking on future engagement with a growing number of schools from around Western Australia.