

Bay conference celebrates Math-Art winners

Competition prize-giving highlight of GeoGebra event

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Showing Nelson Mandela University's Prof Werner Olivier, right, their innovative artworks, are the Eastern Cape winners of the first Math-Art competition, from left, Grens High's Mia Brettell, Beacons High's Shanay Archery (both from East London), Urban Academy's Mandilakhe Khonza, KwaMagxaki High's Mzukisi Nthilsila, Get Ahead College's Zukhanye Hlalaleni (from Komani), Nasruddin Islamic High's Fatima-Zahra Hoosain and Zaafirah Kerdemay, as well as KwaMagxaki High's Masixole Mangwana

Image: Michael Sheehan

It was a clean sweep for KwaMagxaki High School at the weekend with two of its pupils taking the top spots in the Eastern Cape's first Math-Art competition where entrants had to create art pieces inspired by maths. The prize-giving for the Math-Art competition – which was run by Nelson Mandela University's Govan Mbeki Mathematics Development Centre (GMMDC) – was one of the highlights of the centre's fifth annual GeoGebra Conference for teachers and TVET College lecturers. This year's theme was "GeoGebra for STEAM Education: Linking Maths and Arts for Beauty in Design".

GMMDC hosts one of 187 global institutes for GeoGebra, which is free, open-source maths software used in maths and science classrooms across the globe, while STEAM – the acronym for Science, Technology, Engineering, Art and Mathematics – follows an international education trend where science, technology and the arts are promoted through maths.

The weekend conference included several talks, along with practical sessions, where teachers learnt how to include GeoGebra in their classrooms.

The link between maths and the arts – found in nature, fashion, architecture, Islamic and African art – was also the driving force behind GMMDC's Math-Art competition, which drew 113 entries from 36 schools. These are on display at the Nelson Mandela Metropolitan Art Museum until June 8.

KwaMagxaki High's Masixole Mangwana won the Grade 8-9 category with his drawing *Sacred Aloe*, depicting an abstract aloe plant created from geometrical shapes, which symbolised the relationship of the Eastern Cape people with the aloe plant for medicine and other uses.

His schoolmate Mzukisi Nthilsila won the Grade 10-12 category, with his drawing *Six-Point Stars*, an abstract artwork of overlapping triangles resulting in two six-point stars.

The other winners in the Grade 8-9 category were Zaaifrah Kerdemay and Fatima-Zahra Hoosain, both from Nasruddin Islamic High in Port Elizabeth, and Zukhanye Hlaleleni, from Get Ahead College in Komani. In the senior category, winners included East London's Mia Brettell from Grens High School and Shanay Archery from Beaconhurst High, and Port Elizabeth's Mandilakhe Khonza from Urban Academy.

Prizes included art hampers and tablets.

"Our pilot competition was a tremendous success, showing great potential to expose pupils to STEAM education," said GMMDC director Prof Werner Olivier.

"There is so much more to maths than pupils may think." Special guests at the prize-giving and two-day conference were some of Europe's leading researchers in STEAM education, including Finland's Kristof Fenyvesi, a STEAM researcher at the University of Jyvaskyla and the vice-president of the world's largest mathematics, arts and education community, called the Bridges Organisation.

From Hungary, there was Budapest Metropolitan University faculty of communication and arts dean Gyorgy Tury and art historian, curator and associate professor at the same university Gabriella Uhl.

Last Wednesday, as a pre-conference activity, Fenyvesi, in partnership with the GMMDC, ran an Experience Workshop for 100 pupils and 30 teachers from eight schools in Duncan Village, in East London, where participants were given a practical taste of how art and maths connect, as they built soccer balls, geometric shapes and molecules using GeoGebra to understand the structures.