

Science centre a beacon of hope for many STEM-enthusiasts

Uitenhage-based Nelson Mandela Bay Science and Technology Centre hosts National Science Week, intensifies drive to promote science, technology, engineering and mathematics (STEM) in poorly resourced schools and communities.

Science shows and exhibits on renewable energy, energy saving tips, as well as the saving and recycling of water kick-started the Uitenhage Despatch Development Initiative's (UDDI) National Science Week (NSW) activities under the theme science for sustainable development.

An initiative of the Department of Science and Technology (DST), NSW involves various role players conducting science-based activities from 8 to 13 August.

Through its Nelson Mandela Bay Science and Technology Centre, the UDDI is targeting more than 1,000 learners from 20 schools (16 in Nelson Mandela Bay and four in Humansdorp) with its NSW activities.

UDDI Chief Executive Officer Patricia Dlamini says, "Our participation in this countrywide celebration of science shows our commitment to extend the reach of STEM-related support programmes in the region."

"While our focus on education and skills development will largely remain on capacitating Nelson Mandela Bay's poorly resourced schools; we are excited to have expanded our NSW line-up to include Humansdorp," Dlamini says.

"Our long-standing partnership with the South African Agency for Science and Technology Advancement (SAASTA) continues to help our efforts to enhance learner participation and performance in STEM, nurture youth talent and potential, and also provide career guidance in STEM-based disciplines in Nelson Mandela Bay while extending to the broader region.

"We therefore continue to benefit from SAASTA's R500,000 annual injection for the science centre operations. However, in the past year, we have also attracted close to R1 million from external partners such as Vodacom, Continental Tyres and Eskom Development Foundation towards equipment, infrastructure, as well as operational and programmatic support," says Dlamini.

Captivating space in eight zones

Located in Uitenhage's central business district, the science centre is demarcated into eight zones which feature exhibitions in transport, energy, momentum, game zone, life sciences, construction, communication, light and optics.

"Our energy exhibition space has been bolstered with two new sets of exhibits from Eskom and Cape Town Science Centre," explains Chris McCartney, head of the science centre's in-house programmes.

"Eskom's 15-touchscreen exhibition is aimed at promoting energy efficiency and saving. Each exhibit is based on home-based scenarios such as the use of energy efficient lamps, water and energy saving showers, solar powered geyser and many more.

"The energy tunnel is on consignment from the Cape Town Science Centre. It highlights electricity distribution and showcases renewable and non-renewable energy sources," adds McCartney.

Programmatic support through in-house and outreach activities

This year alone, the science centre team has reached 8,372 learners, educators and members of the public through its programmes which include the second chance supplementary exam revision programme (held in January), grade 12 after school programme (ongoing since February), curriculum aligned and practical lessons (ongoing since February), holiday edutainment (held during Easter and June/July school break), as well three industry events.

"Besides hosting NSW for the fourth consecutive year now, we have also been the proud satellite host of Scifest Africa for the third year running, and also attracted a captive audience for the Nelson Mandela Metropolitan University's (NMMU) Career Expo held earlier this year.

"A total of 843 learners and members of the public attended the Career Expo and a further 1,054 learners and 35 educators participated in our Scifest activities," he says.

While the centre has a core team responsible for curriculum development and delivery of curriculum support programmes, "a six-member team of science communicators is at the heart of the science centre's programmes," adds Singathwa Poswa, spearheading the science centre's outreach programmes.

"The science communicators assist to facilitate lessons and practical demonstrations for learners that participate in the centre's in-house and

outreach programmes,” explains Poswa.

“They [science communicators] all have science-related degrees and are employed on 12-month contracts as part of the Department of Science and Technology’s Youth into Science Programme,” she adds.

Since its launch in 2013, the Nelson Mandela Bay Science and Technology Centre has reached more than 38,000 learners, educators and members of the public through in house and outreach programmes as well as industry events. The science centre will be hosting several events in the coming months: schools’ arts and culture event on 25-26 August, SAEON Symposium on 7 September and an innovation event planned for October.