

Science2Go Mobile Resource Centre boosts Gqeberha learners' access to practical STEM lessons

Sponsored by the Ford Motor Company, Nelson Mandela Bay's new Science2Go Mobile Resource Centre will allow for around 10,000 learners and 30 teachers at 11 high schools in the area greater access to practical and hands-on science learning experiences.



Ford Science2Go Mobile Resource Centre - locally-built Ford Ranger pick-up that is used as the mobile science laboratory and resource centre

The Ford Science2Go Mobile Resource Centre will visit each of the targeted schools three times per term. Prior to the school visits, teachers will participate in workshops aimed at improving their skills and knowledge. Furthermore, the Science2Go team will provide learners with special sessions pertaining to career, study, and subject choice information relating to the fields of Science, Technology, Engineering and Mathematics (STEM). Participating schools also take part in an annual Science Olympiad where learners' knowledge and skills of practical science is evaluated.

The Science2Go project will also conduct a rural roadshow outreach in partnership with the Eastern Cape Department of Basic Education. The roadshow will reach an additional 5,000 learners at 10 schools, and provide training to a further 300 teachers to increase their competence and confidence in delivering practical and impactful science lessons.

Collaboration

The Science2Go initiative is run by the Centre for the Advancement of Science and Mathematics Education Trust (CASME) in collaboration with founding project partner Mahle Behr South Africa. Ford Motor Company Fund, the philanthropic arm of Ford Motor Company, is supporting the project for a period of three years, with a grant of R1.4m in the first year. Additionally, Ford South Africa donated a locally-built Ford Ranger pick-up that is used as the mobile science laboratory and resource centre.

“Science2Go is an initiative by CASME and Mahle Behr to bridge the gaps in science teaching and learning in public schools,” says Henre Benson, director of CASME. “The Science2Go Mobile Resource Centre is a cost-effective solution to address the lack of access to scientific educational resources in rural and peri-urban public schools that either lack the funds to provide adequate laboratory equipment or do not have any laboratories at all. It not only brings much-needed resources, but also experienced facilitators to build teachers' capacity and skills.”

Since 2015, CASME has operated Science2Go Mobile Resource Centres in collaboration with project partner Mahle Behr, an automotive component manufacturer, to bring the resource centre concept to schools that don't have access to adequate science facilities or fully trained teachers. To date, the project has reached 493 schools, 1,902 teachers and over 80,000 learners.

According to CASME, the National Education Infrastructure Management System (NEIMS) Standard Report indicates that only around 18% of ordinary public schools across the country have science laboratories, and in Eastern Cape this figure is even lower at less than 6% – which highlights the need for strategic interventions.



“Science2Go is tackling this situation head-on by providing a community of schools with access to both the resources and the expertise to deliver meaningful science teaching experiences,” Benson says. “It will increase practical, hands-on learning and aims to enhance learners' interest, participation and enrolment in science at the senior secondary and tertiary level.”

Implementation and support

“Over the three-year implementation of the project it is expected that learner performance will improve by 20%, and

enrolment in Physical Sciences will increase by 20% in the project schools,” Benson says.

“Education plays a vital, foundational role in empowering and uplifting communities, particularly in South Africa where access to the necessary resources, training and practical learning opportunities is limited,” says Shawn Govender, plant manager of the Ford Struandale Engine Plant in Gqeberha. “Partnering with innovative non-profit organisations and far-reaching projects such as Science2Go is essential to help equip the youth of today with the necessary skills and practical training that will help create the scientists and engineers of tomorrow.

“Science2Go is a tangible way of addressing the dire shortage of qualified professionals in the fields of Science, Technology, Engineering and Mathematics, which is currently one of the major inhibitors of economic growth and job creation in South Africa,” Govender adds. “This skills shortage is clearly evident in our manufacturing operations where we battle to find qualified people to fill essential roles in all of the engineering fields, along with fast-developing sectors such as mechatronics and robotics.

“Therefore Ford is privileged to be supporting this project for the next three years in Nelson Mandela Bay, both through the grant from Ford Motor Company Fund, and by providing the mobility for the project with our proudly South African-built Ford Ranger, powered by an engine produced right here in Gqeberha. It reinforces our Ford+ value of caring for each other, and reaffirms our commitment to education by enhancing the skills of teachers and reigniting interest and enthusiasm for science amongst our learners,” concludes Govender.

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