BLINKPAN LEARNERS EMBRACE ROBOTICS



WHY SCIENCE MATTERS

The sound of excitement echoed through the classrooms of Blinkpan Primary School on Tuesday, 21 July, as learners explored LEGO robots, laptops and tablets handed over through a new robotics initiative aimed at preparing them for a technology-driven future.

BRINGING SCIENCE TO THE CLASSROOM

The handover, led by TechnoAfrika Discovery Centre on behalf of FIRST LEGO League South Africa and hosted in partnership with Eskom's Komati Power Station, formed part of South Africa's inaugural National Science Month, observed throughout the month of July.



HANDS-ON STEM LEARNING

The visit to the school saw the official handover of LEGO SPIKE robotics equipment, laptops and tablets aimed at strengthening STEM (Science, Technology, Engineering and Mathematics) education while expanding robotics and digital learning opportunities for learners.



DRIVING SCIENCE THROUGH PARTNERSHIP

Under this year's theme, "Science, Technology and Innovation are for Everyone," National Science Month was launched on 4 July at the Vaal University of Technology in Sebokeng, Gauteng, building on the country's long-running National Science Week to expand science engagement across all communities.

The initiative is led by the Department of Science, Technology and Innovation and implemented through the National Research Foundation's South African Agency for Science and Technology Advancement (NRF-SAASTA). At Blinkpan Primary School, those national efforts translated into action.



A THREE-YEAR INVESTMENT IN FUTURE INNOVATORS

Among those in attendance were representatives from Komati Power Station management, the School Management Team, the School Governing Body, STEM educators, community representatives, FIRST LEGO League South Africa and TechnoAfrika Discovery Centre.

Project Manager at TechnoAfrika Discovery Centre, Sarai Mandude, described the visit as the beginning of Blinkpan Primary School's robotics journey.





- Sarai Mandude
Project Manager, TechnoAfrika Discovery Centre

''Robotics, coding and Fourth Industrial Revolution skills are becoming an important part of the future of education and industry''

Mandude explained that the school had been awarded the robotics kits through a three-year grant from FIRST LEGO League South Africa, benefiting learners from Grade 3 to Grade 7.

"The programme is not only about providing equipment, but also about connecting the school and learners to the wider FIRST LEGO League robotics family, where they can learn, innovate, collaborate and eventually participate in robotics competitions," he said.

He added that the initiative aligns with South Africa's growing focus on coding and robotics in schools.

"Robotics, coding and Fourth Industrial Revolution skills are becoming an important part of the future of education and industry. By exposing learners to these skills early, we are helping them develop problem-solving abilities, creativity, teamwork, critical thinking and an interest in science, technology, engineering and mathematics," he said.

BUILDING A SUSTAINABLE ROBOTICS PROGRAMME

Mandude added that the programme complements the Department of Basic Education's ongoing rollout of coding and robotics by giving learners practical, hands-on experiences that connect classroom learning with real-world technology.

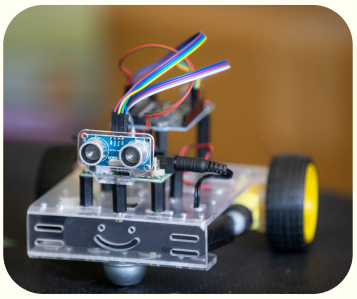
Beyond the donation of equipment, the project plans to establish an after-school robotics programme for Grade 4 to Grade 7 learners while supporting Grade 3 learners during school hours, subject to further discussions with the school and its partners. The first phase, he explained, will focus on training teachers and community volunteers who will coach and mentor learners before preparing them for robotics competitions and innovation challenges.

Mandude believes the long-term success of the project depends on community ownership. "We would like the Komati community to play an active role in safeguarding the equipment, encouraging learners to use the resources and supporting the school in building a strong robotics programme," he said.



He added that TechnoAfrika hopes to recruit volunteers from within the community to serve as coaches, mentors, judges and referees during robotics activities while encouraging local organisations and businesses to support the programme and eventually expand it to Laerskool Koornfontein, also in Komati.

"Our vision is for facilitators who support the school to come from within the community itself. This will build local capacity, create ownership and ensure that the programme continues to benefit learners for many years to come."



PARTNERSHIPS DRIVING STEM EDUCATION

The project brings together several strategic partners, including Komati Power Station, FIRST LEGO League South Africa, the Mpumalanga Department of Education, OR Tambo Mathematics, Science and Technology Academy, the Department of Science, Technology and Innovation, NRF-SAASTA and The Learning Trust.

As a start-up science centre and non-profit STEM innovation hub based in the Steve Tshwete Local Municipality, TechnoAfrika Discovery Centre works to promote science, technology and innovation through practical learner programmes, teacher development, community workshops and science awareness initiatives. Supported by the Department of Science, Technology and Innovation through NRF-SAASTA. The organisation serves as the official FIRST LEGO League South Africa partner in Mpumalanga's Nkangala Region.



SCHOOL WELCOMES ROBOTICS PROGRAMME

Blinkpan Primary School Principal, Miss N.J Thonzi welcomed the initiative, describing it as an important investment in the school's future.

- -Miss N.J. Thonzi
Blinkpan Primary School, Principal

''We are very happy about this visit. This will be a great addition to our curriculum, and it is wonderful to see our learners enjoying themselves while learning,"

She said she was delighted to see learners smiling as they interacted with the robots while learning, adding that the excitement on their faces showed how engaging technology-based education can be.

Thonzi believes the programme has the potential to become an important part of the school's curriculum.

"We are very happy about this visit. This will be a great addition to our curriculum, and it is wonderful to see our learners enjoying themselves while learning," she said, Thonzi expressed hope that the initiative would not end with the handover of equipment but would continue through the training of both teachers and learners to ensure the programme becomes sustainable.

PREPARING LEARNERS FOR TOMORROW'S OPPORTUNITIES

The programme brought together the School Management Team (SMT), School Governing Body (SGB), STEM educators, community representatives, Komati Power Station management and other invited stakeholders for a briefing before the official proceedings got underway. Guests were welcomed to the school, followed by an official handover address by TechnoAfrika Discovery Centre, acceptance remarks from the principal and a message from a representative of Komati Power Station.

A community representative also addressed those in attendance before the official handover of the robotics equipment, laptops and tablets. Learners then showcased the possibilities of STEM education through robotics demonstrations, practical science experiments and a science show.

The enthusiasm displayed by the learners during the demonstrations suggested that the first steps have already been taken. Growing up in a community shaped by power generation, mining and South Africa's Just Energy Transition, these learners will need the science, technology and innovation skills that are increasingly shaping the jobs of tomorrow.

If the partnerships behind the project continue to grow, Blinkpan Primary School could become a model for equipping young people with the skills to seize those opportunities, one robot at a time.



