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6 March 2024

Dear Parents and Learners

STEAM WEEK powered by Standard Bank: a 150 JUBILEE INITIATIVE

What an exciting week this has been so far. From Mr Ross Kelly's talk on "Artificial Intelligence and new technologies" in the assembly on Monday morning, to science experiments, coding, drone-flying, art, singing, eSports, QR-code Heritage Trail, the girls have received a taste of the exciting world of Science, Technology, Engineering, Arts and Mathematics around them. A group has also collaborated around Mathematics and Science problems with learners from St James Secondary School.

Failing Forward, the limitations of AI without the human touch of using AI effectively, the fast-paced changes we are experiencing and the important role that women can play in the technology space were all emphasised by Mr Kelly of Derivco, a software development house of the online-gaming world, and they encapsulated just how many opportunities lie ahead. I hope that your daughters have taken onboard the importance of "failing forward" – chat to them about this and how creativity for the next idea can come through the failure of the previous.



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Tomorrow is the high point of the week, with the presence of Pepper, South Africa's first humanoid robot being on campus; Kuunda Disrupt micro-bit and coding challenges; the STEAM EXPO and Career Pop-up; and the STEAM evening. I do urge you, your daughters and your children at other schools (primary and high school) to come and experience all that is on offer at the EXPOs and to attend the STEAM Talks evening. A full list of all the exhibitors at the EXPOs appears at the end of this letter.

Learners in **Grades Eight and Nine** intending to take Physical Sciences, Information Technology or Mathematics in Grades Ten, Eleven and Twelve should attend the expo and this evening. **Learners in Grade Ten, Eleven and Twelve who take Physical Sciences have been notified that attendance at the Expo and Talks Evening is compulsory.**

STEAM TALKS EVENING

We invite you to join us tomorrow from 19:00 to 21;00 in the Stevenson Hall for an enriching evening of insights and inspiration, where we have the honour of hosting some of the most prestigious speakers in our community. The speakers are Pepper; Professor Justin Jonas; Yanesh Naidoo and Isabel van Gend.



Pepper is the first humanoid robot in South Africa, and this marks Pepper's first visit to the Eastern Cape. She was created by Softbank Robotics in France. Her purpose is to bridge the gap between technology and humanity, facilitating seamless interactions between humans and technology. At Standard Bank, Pepper proudly serves as an ambassador of digital transformation and innovation. Another endeavour close to her mechanical heart is spending time at local schools, including Africa Regions School, conducting STEAM Roadshows with the Kuunda Disrupt team. Pepper has said, "The learners of today hold the key to shaping the future landscape of our society and workforce. Together, let us embark on a journey of exploration and discovery, delving into the realms of programming and technological innovation."



Professor Justin Jonas provides technical direction and oversight for all activities undertaken by SKA South Africa. He was the SA scientist who led South Africa into the ambitious international Square Kilometre Array Radio Telescope (SKA) Project. He was a member of the team that drafted the African bid to host the massive telescope. In 2012 the SA bid was ranked highest, and a decision was made to locate the two components of the SKA in SA and Australia, the two short-listed

countries. **MeerKAT**, originally the **Karoo Array Telescope**, is a radio telescope consisting of 64 antennas in the Meerkat National Park, in the Northern Cape of South Africa. MeerKAT is now a world-leading radio telescope with a large international and local user community that has already made significant new discoveries that have been reported in prominent journals. Professor Jonas' broad areas of influence include the development of the Karoo radio observatory and the technical aspects of the African VLBI Network (AVN) programme. He is also Director of the Centre for Radio Astronomy Techniques and Technologies (RATT) at Rhodes University. Recently he had the role of Technical Advisor on the National Ventilator Project (NVP) team.



Yanesh Naidoo of Jendamark represents a company that develops assembly lines and special-purpose machines for the global automotive manufacturing sector. Jendamark specialises in delivering solutions in three key areas – powertrain, catalytic converter and electric vehicle power assembly. Their ODIN Manufacturing division harnesses this real-world experience and works to integrate 4IR technologies by developing digital transformation solutions for any production facility. Jendamark won the Africa Tech Company of the Year in 2022 and Tech Innovation of the Year in 2023.



Isabel van Gend (STEM in Action) is the director of the Nelson Mandela University's STEM programme, and she reveals that working with school learners attending the STEM educational programme at the NMU Missionvale campus over the past seven-and-a-half years has been a humbling, and uplifting experience. The STEM in Action programme provides an opportunity for selected schools that have a track record of excellence to bring physical science learners and their teachers to conduct a range of Curriculum Assessment Policy-aligned experiments. The programme plays an important role in promoting STEM subjects, science, technology,

engineering and mathematics, and providing extra tuition to high school learners from Grades 10 to 12. In her own words: "I gained insight into how difficult it is for a marginalised child to be a successful scholar when there is minimal parental support and hardly any role models. Their resilience and commitment are noteworthy." Currently more than 2 500 learners from 36 high schools attend programmes on campus.

Entrance to the STEAM Talks Evening is R30 via d6 Project for Steam Talks Evening or via Quicket at <u>https://qkt.io/qtz5Nn</u>.

We do encourage you to join us for this high point of our **STEAM Week, powered by Standard Bank**. We would also love to see your daughters and you at the STEAM Expo and Career Pop-up in the afternoon. The list of exhibitors is overleaf.

Yours sincerely

MRS L ERASMUS PRINCIPAL





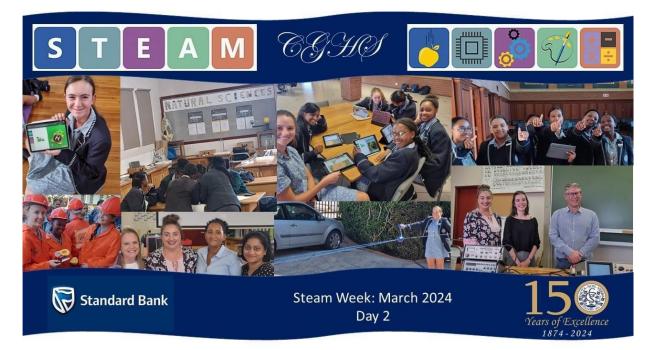
List of Some of the Exhibitors at Standard Bank Steam Week:

PVinsight Sharp / Edu-matic eVantage Group S4 Integration **Centurion Systems BDO South Africa Incorporated** Eduvos Algoa Flying Club StratAstute - Future Ones NPC Polyoak Eastern Cape **IIE Varsity C** Rhomberg Instruments (2006) (Pty) Ltd 2Simple Africa (Incorporated in England and Wales) The Wireless & Radio Active Productions Publishing Livingstone ICU and Respiratory Care Africa **Hi-Tech Automotive** ΕY Nelson Mandela University - Human Movement Science 2Simple Africa MTN **SMD** Technologies Gardmed Ambulance Service **CTU Training Solutions** Imbono Architects Boston City Campus (Pty)Ltd











Collegiate Girls' High School