

## Shaping Young Minds Through Real-World and Digital Experiences

**V**irtual reality, digital modelling and a live bridge site visit – a day of engineering innovation in action!

SMEC South Africa's KwaZulu-Natal region recently welcomed 10 Grade 8 and 9 learners from Umkhumbane Secondary School for a hands-on Day in the Life of a Consulting Engineer. This wasn't just about hard hats and blueprints – it was about showing the next generation how digital tools are reshaping the world of engineering.

From experiencing infrastructure in immersive VR to learning how data and modelling drive design and decision-making, learners were introduced to the exciting possibilities of a tech-driven profession. They met engineers using cutting-edge tools to solve real-world challenges, reinforcing that today's engineers are just as fluent in software and simulations as they are in structures and soil.

The day highlighted just how powerful digital innovation has become in shaping smarter, safer, and more sustainable infrastructure!

 **ENGINEERING  
NEW DREAMS**

"I never knew engineering could be so creative! Today showed me how many exciting paths there are – and now I'm even more determined to become an engineer one day."



**Opening Doors to Engineering:** A warm welcome from SMEC South Africa



**Learning through Real-Life Projects:** The Kassier project grabs attention.



**Voices from the Field:** Discovering the many paths of engineering.



**The VR Challenge:** Where future engineers met virtual design head-on!



**From Plans to Site:** Resident Engineer walks students through the bridge design at Kassier Road.



**Geared Up:** Students in their safety gear ready to visit the Kassier Road project.



**ENGINEERING THE  
FUTURE PODCAST**

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