

DRIVING SOCIAL CHANGE

TOGETHER WITH THE YOUNG PEOPLE OF SOUTH AFRICA

① WELCOME:

Royal HaskoningDHV was honoured to host high school learners in Johannesburg, Cape Town, KwaZulu-Natal, Tshwane and Nelson Mandela Bay. Learners were warmly welcomed with breakfast, followed by a run-down on health and safety requirements and handing out of safety gear.

② THE CONSULTING OFFICE ENVIRONMENT:

Engineers, technologists and technicians provided insight into projects in the civil, mechanical and electrical engineering disciplines. Presentations and round-table discussions were held with the learners – in similar fashion as to how it's done in a professional engineering environment. Learners were guided through the engineering process – conceptualisation, design, drawings – and shown how construction costs are estimated.

③ DEVELOPING INGENUITY:

Learners were put to the test and, at one office, had to design and construct a pilot tower using toilet rolls, plastic bottles and soap bars. The team with the tallest tower and best aesthetic design was awarded the 'Winner's Certificate'. At another office, learners were given polystyrene cups and plastic straws with which to design a system that would carry one cup of water a distance of 40cm and split the water into two separate destination containers. If the design worked, each destination container would end up with exactly half a cup of water. Here the winners received 'Future Engineer' certificates! Practical challenges such as these prompt learners to think out the box – and neatly demonstrate how engineers have to view much larger projects.

④ CONSTRUCTION INTERFACE:

Learners were taken to various sites where they were met and hosted by an engineer's representative and a designer. A safety induction followed the formal site introduction. By explaining the design process, learners could grasp how a project is interpreted from designs and drawings, the actual construction, site anomalies and how to rectify them. The importance of effective communication and collaboration with contractor teams were highlighted. Health and safety requirements were emphasised, as was the fact that professionals have to ensure sustainable development that's in harmony with its surroundings.

⑤ CONNECTING THE DOTS:

Concluding the day, learners were returned to the office where they had opportunity to reflect on the day – what they had understood and learnt – and ask questions. Amongst others, they were asked if they were able to link a consulting engineer's function to construction techniques. We also wanted to know if they had understood how social, economic and environmental parameters determine construction techniques and viability.

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