

GRADE 10 UP WITH SCIENCE DAY 2014

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The UP with Science Programme is an initiative by the University of Pretoria that enriches senior secondary school learners and exposes them to various disciplines in science. The initiative allows learners to experience research first hand; forming part of this initiative is a Grade 10 day. This entails showing the learners the different fields of study that are offered at the University of Pretoria and allowing them to take part in experiments and educational activities. This year's Centre of Excellence in Tree Health Biotechnology (CTHB) outreach team, including Amy Wooding (team leader), Juanita Avontuur, Godfrey Kgatle, Teboho Letsoalo and Khumbuzile Bophela, participated in the Grade 10 UP with Science project.



Top left photo: Grade 10 learners being briefed by one of the outreach team members, about their tasks as media representatives. Top right photo: One of the groups formed by Grade 10 learners representing a country.

The activity that the learners took part in during the day was based on the Ebola virus outbreak in Western Africa. This gave the learners a glimpse of what is behind identifying the virus, tracing the movement of the virus and the impact of the virus on society. It also gave a real life experience and educational opportunity for the learners to learn about the various roles that scientist may play in a situation such as this devastating virus outbreak.

The action packed day began with the learners dividing themselves into groups. Each group has been designated a country in which they were working. They were then given information sheets that provided them with the different roles each group member was to play. Each group included a media representative, doctor, scientist, health minister, CDC or WHO representative and two patients. Next the learners were given a brief talk about what Ebola is and the history of this virus on the African continent.

Once the learners organised themselves, instructions were given to them throughout the day regarding dispensing of information from each country through the media representatives, various press releases through the government officials, and many other tasks. Once the learners had established the condition of their patients, a talk was given about the different methods employed to test for Ebola in patients and the necessary steps that are usually taken for treatment, this was followed by each group (country) choosing between the two methods proposed, real time PCR or ELISA, that they would use to aid in diagnosis.



Two brave Grade 10 learners sharing the explanation of the spread of Ebola in each given country

Once the patients had been diagnosed, the main objective was to find patient zero. This saw the grade 10s working together, with the aid of a white board, to figure out the different travel histories of the patients, mode of infection between the different patients and the origin of the infection. This was truly educational and a lot of fun.

By the end of the day the CTHB outreach team members were inundated with questions regarding careers in science, important subjects at school, and diseases in general. We would like to thank the Grade 10 learners for participating and Mrs Miranda Deutschlander for supervising the learners.