

UP WITH SCIENCE OUTREACH SUCCESSFUL

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In an effort to increase awareness of Science amongst High School pupils, the University of Pretoria, together with the Faculty of Natural and Agricultural Sciences, initiated the “UP with Science” programme. Learners in grades 10 to 12 at local high schools are introduced to the various programmes at Departments in the Faculty. The DST/NRF Centre of Excellence in Tree Health Biotechnology (CTHB) was again involved in both the grades 10 and grades 11 programmes this year.

On 5 September 2009, a visit of 41 Grade 10 students was organized by Prof Brenda Wingfield and honours students from the Department of Genetics. Initially, the students were tested and educated on the basics of genetics by means of a multiple-choice quiz. This was followed by a round table discussion about current issues involving genetics, such as swine flu and HIV. This served as the perfect introduction to the video entitled “What genetics is not!” which all the students thoroughly enjoyed. The inheritance of genes was illustrated and reconfirmed through a game using blood groups in which babies were matched to parents. The highlight of the day was when students extracted their own DNA, using household chemicals such as dish washing liquid and table salt.

Overall, the day was hugely successful where Genetics was taught while having fun. Some of the comments made by the grade 10 students highlighted this. Dorett Erasmus said, “Genetics is awesome and learning about what DNA and genes really are, made my day”, while Dominique Nemutanzhela thought, “This day has been fun, interesting and enriching. The best parts were the pop quiz and isolating my own DNA”.



Anike Truter and Markus Wilken with the project “The magic of mushrooms” at the Gauteng regional expo competition.

For the first six months of 2009, the CTHB also sponsored a project run by the grade 11 “UP with Science” programme. Eight learners, under the supervision of Markus Wilken from FABI, explored the diversity of mushrooms found around Pretoria. By sequencing the ITS region of these mushrooms, the species were identified. One of the students, Anike Truter then reworked the project and entered the recent regional expo competition. The project, “The magic of mushrooms”, won a silver medal, as well as the Grassland Society of Southern Africa Award for the Best Ecological Project. Through her presentation, Anike not only showed that mushrooms are abundant in Pretoria, but also highlighted the importance of understanding our natural fungal biodiversity.

The CTHB plays a crucial role in helping to make these programmes a success. In addition, these will enable well-informed and eager young scientists to take research forward into the future.



A Gr. 10 student busy isolation his own DNA.



Two of the Genetics Honours students illustrating how to use a pipette.



Students with the days hard work: Your DNA.



The Gr. 10 students who visited the University for the UPwithScience day.