

Annual report Stellenbosch region 2010



Regional exhibition



Woman's Memorial



Boyden Observatory



Maropeng visitors' centre



ABI manufacturing plant

Educational tour to Pretoria by bus



Stellenbosch's ambassadors in festive mood

1. Introduction

Like previous years, this year proved to have its unique challenges. The 2010 Soccer World Cup had a definite influence on learners and teachers' commitment to finalise their research projects during the June/July holiday. The teachers' strike also took its distinctive toll. This lack of a teaching and learning culture especially in township schools clearly impacted on Expo participation.

2. Sponsorship

Financial support of donors and sponsors helped in funding the regional competition. Our sincere thanks go to the Albert Wessels Trust, the Het Jan Marais National Fund, Exxaro, Eskom via the Expo national office, and the local (Western Cape) Eskom. At Stellenbosch University the faculties of AgriSciences, Arts and Social Sciences, Education, Engineering, Health Sciences and Sciences contributed to Expo by providing cash prizes for category winners. The Centre for Invasive Biology and South Africa's National Energy Research Institute contributed likewise. Without all of these contributions our regional competition would not have been possible.

3. Workshops

A Saturday workshop was held in Beaufort West and 2 Saturday workshops in Mooresburg. Five afternoon workshops were conducted at the University for learners in and around Stellenbosch.

4. Regional Expo

The regional competition was held on 26 and 27 August 2010 in the new hall of Bloemhof Girls High School in Stellenbosch.

38 Schools from as far as Lutzville, Bredasdorp and Beaufort West participated. Two schools joined for the first time. 20 Schools were Secondary schools (Gr 8 – 12), six were Primary schools (Gr R – 7), five were Intermediate schools (Gr 1 – 9) and seven were Combined schools (Gr 1 – 12).

All schools were limited to a maximum of 15 projects each. 219 projects were exhibited by 342 participants. 230 (67.3%) of these learners were from schools in rural areas and 217 (63.5%) of the participants were girls.

96 Judges assessed the projects and after a thorough judging process 65 bronze, 45 silver and 27 gold medals, as well as 19 special prizes were awarded to deserving projects.

Aimee Scholtz from Rhenish Girls High School received the Eskom prize for the best project by a girl participant. Her project was on deterministic chaos and in particular its sensitivity to small changes. This was motivated by issues of climate change. Simple mathematical models were investigated using a computer and also a pendulum. When a system is chaotic it can be described by mathematical equations.

Siphosethu Mbuli from Kayamandi High School was Eskom's best development project winner. She researched the effect of caffeine on a person's awareness by doing various tests to show alertness before and after drinking coffee.

Eskom's award for the best alternative energy project went to Pierre Schaafsma and Stefan Schreuder from Stellenbosch High School. They tested different trees in various weather conditions to determine its effect on the amount of electricity that can be produced from trees.

Henco Botha from Vredenburg High School was Eskom's best energy efficiency project winner. He compared normal bulbs, energy saving bulbs and the latest LED bulb in terms of light intensity, energy use and cost. The LED bulb proved to be the best option over the long run.

5. National Finals

Twenty projects from 15 schools were selected as regional representatives for the national competition on 1 and 2 October 2010. Each project was visited and given suitable advice and tips for national participation.

It was decided to make use of bus transport this year, and to undertake an educational tour while doing so. The national delegation left Stellenbosch for Bloemfontein on Tuesday evening 28 September. For many learners it was their very first time in the Free State and they found the Anglo-Boer war museum and Women's memorial, as well as the Boyden Observatory very interesting. After sleeping over in Potchefstroom we departed for the Cradle of Humankind where the amazing Maropeng visitors' centre and Sterkfontein caves were visited. After a mind-boggling visit to the ABI bottling plant where literally millions of Coca Cola products are bottled every day, we booked in at the Holiday Inn in Pretoria.

The 30th birthday of Expo was really a special occasion and an absolute highlight where everyone enjoyed it tremendously! It was also a great idea to honour the people who have carried Expo over the last 20 - 30 years. Another absolute delight was Mr Eddie Jansen who performed a science show during the judges' previewing period. The learners just could not get enough of his dry humour and fascinating tricks!

Unfortunately the judging process did not take place as thoroughly and consequently as it should have. This was a huge disappointment in our light of Expo South Africa's overall aiming towards Intel ISEF norms and standards. A reply and feedback on comments given are still awaited from the National Board of Director's side.

Detail of the national participants is as follows:

Category	Name and Surname	M/F	Gr	School	Topic of project	Award
Energy	Henco Botha	M	11	Vredenburg High School	Good, better, LED	Gold medal, Senior category winner, international participation in ESI 2011, Bratislava, Slovakia
Environmental Science	Christoff Geldenhuys	M	9	Vredenburg High School	Following the fashion? But water is so expensive!	Gold medal

Category	Name and Surname	M/F	Gr	School	Topic of project	Award
Engineering – Mechanical	Dillon Hopley	M	11	Bredasdorp High School	Smokeless chimney!	Silver medal, CBI-Mechanical engineering special award
Food Sciences and Technology	Simone van den Berg Anel Mouton	F F	11	Bellville High School	The Calsium content of different types of milk	Silver medal, SAAFoST Award – 3rd prize
Animal/ Vet. Science	Lisa–Mari Bester	F	10	Velddrif High School	Treating Laminitis with the Hoof Spa	Silver medal, Senior category winner
Energy	Mabru Uys	F	9	Bloemhof Girls High School	A north facing house uses less electricity	Silver medal, Junior category winner
Animal/ Veterinary Science	Heléne Booyens Elisna Dicks	F F	12	Bloemhof Girls High School	Alternative therapy improves the physical and emotional well being of horses	Silver medal
Health Care	Siphosethu Mbuli	F	10	Kayamandi High School	Drinking coffee makes you more alert	Silver medal
Agricultural Sciences	Vinzanio Galawe Calvin Meintjies	M M	9	Maskam Primary School	Shepherd: Anatolic dog or technology?	Silver medal
Innovation & Technology	Jason Jordaan Tian Alberts	M M	7	Eikestad Primary School	Environmentally friendly solar cell phone	Silver medal
Plant Sciences	Eike Davis Arrienne Arendse	F F	12	The Settlers High School	Tea for two.	Bronze medal
Energy	Stefan C de Wet	M	11	Curro Private School	Alternative, sustainable energy from the tides	Bronze medal
Agricultural Sciences	ZA Walters	M	10	Graafwater High School	Feedlot beats low grain prizes	Bronze medal
Social and Psychological Sciences	Suemari Bezuidenhout	F	10	Stellenbosch High School	Baroque music improves cognitive functioning	Bronze medal
Agricultural Sciences	Madeleine Carstens Carla v Schalkwyk	F F	9	Bloemhof Girls High School	Broilerchick droppings influences the growth of <i>Tilapia</i> fish	Bronze medal
Environmental Science	Fahiema Abdol Samantha Pinto	F F	9	Diazville High School	The feather which removes the oil	Bronze medal
Innovation and Technology	Daniel Steyn Daniel Botha	M M	7	Eikestad Primary School	Improved functioning of cordless microphones	Bronze medal
Health Care	Jaydey Sass	F	12	Atlantis SSS	Vanilla calmness	
Physics, Astronomy and Space Science	Aimee Scholtz	F	10	Rhenish Girls High School	Chaos	
Physics, Astronomy	Savia Fedeli Chelsea de Beer	F F	10	Rhenish Girls High School	Goal! The aerodynamics of the "Jabulani" soccer ball	

6. Marketing

CD's were sent out to invite 338 schools in the wider Stellenbosch region to participate at regional level. The Science guide books supplied were distributed at training workshops and teachers said it was helpful.

Big banners with details were put up in Stellenbosch to invite visitors to come to the regional competition.

Local newspapers in the various districts of the Stellenbosch region published dates of the regional expo and prompted learners and teachers to become involved. After the regional and national competitions pictures of achievers were placed again.

Magna Carta put up banners at the venue where the regional competition was held. They also conducted and recorded some interviews at the regional competition.

7. International participation

Henco Botha was selected to represent South Africa at ESI 2011 in Bratislava, Slovakia on 18th – 23th July 2011. Our best wishes accompany him!

8. General

I want to thank Priscilla and Rancia for all their efforts. Without head office's support, kindness and care we cannot realise our regional potential! 2010 was a special year for Expo and it was a privilege for me to be part of it!



2 December 2010

Regional coordinator, Stellenbosch



Stellenbosch organising team



Mr Eddie Jansen dazzled with his tricks



30th birthday celebrations



Henco Botha who will represent South Africa