

STELLENBOSCH REGION

2013



On our way to SAISF – full of excitement and expectations!



Discovering at the Scibono Discovery Centre, Johannesburg



During our visit to Wits Origin of Humankind Centre

Introduction

Expo for Young Scientists in the Stellenbosch region experienced a blessed year in more than one way.

We were fortunate to receive a bigger budget and quota from national office. Like in the past interesting and exciting research projects were entered for our regional competition. A dedicated team of judges once again spend their precious time and energy in order for the committee to select a good team of ambassadors for SAISF.

Supporting the West Coast area to form a new region was an exciting challenge. Not only were new structures to be put in place, but people had to be empowered to work and act independently. The Eskom Expo provincial coordinators could not have been appointed at a better time and the assistance and experience of Mada du Toit made the secession of the West Coast region a lot easier.

We have also started building new capacity and hope to reach and surpass our former number of schools and participants very soon. We plan to promote and expand Expo participation by giving project supporting incentives to new schools that come on board.

Sponsorship

Sponsors and donors make it possible to run an exposition of good standard. Our sincere thanks go to the Het Jan Marais National Fund, Stellenbosch University, Eskom nationally as well as Eskom in the Western Cape. A big thank to all who understand and share our passion for this worthy cause!

Workshops

A number of workshops were conducted. On 16 February 40 teachers from various schools in the Overberg were addressed at a workshop in Caledon. On 19 February a workshop for learners was held at Paul Roos Gymnasium – it was attended by about 300 learners. 35 learners and five teachers attended a workshop in Mossel Bay on 19 April.

One the same day, just before the regional expo competition, one workshop for new and inexperienced judges was held. Round about 25 people turned up.

All the projects chosen for SAISF were visited to give participants and teachers tips for upgrading and polishing. We believe that this refining process makes a huge difference, not only in refining projects and getting to know the learners, but also to keep them motivated and willing to walk the extra mile.

Regional Expo

The regional competition was held in Stellenbosch on 22 and 23 August 2013, in Paul Roos Gymnasium's activity hall.

One hundred and forty eight projects were exhibited at the exposition, of which 80 were individual and 68 group projects. These 148 research projects were done by 216 learners from 19 schools. More females than males participated: 149 females compared to 67 males! There were 51 black participants in total, of which 35 were female and 16 male.

All of the projects were judged at least three times by the 94 judges. Thirty eight participants received bronze medals, 38 silver medals and 19 gold medals. A total of 33 special awards were made.

The Eskom Expo award for the best female winning project went to Angelique Olivier and Denise Coetzee. They came up with an affordable and effective water heating system for people in informal settlements, by using recyclable and easily obtainable material. The Eskom Expo award to the best development project went to Bulelani Nkupane and Nandipha Boyce who used recyclable material to make a well-designed, sturdy, waterproof school bag with road safety features. The best alternative Eskom Expo energy winning project was that of Werner Theron and Megan Janse van Rensburg. They studied the influence of factors like microwaves and added CO₂ on algae growth when used in the production of biofuel. The best Eskom Expo energy efficient winning project was that of Janré Hanekom who discovered that a middle class family can save a lot of electricity by reducing the use of only eight appliances.

South African International Science Fair

Twenty four research projects by 33 participants out of 14 schools were selected as regional representatives for the national competition held from 25 to 28 September 2013 at the Birchwood centre in Boksburg. Like in the past we viewed it as important to select projects from as many schools and districts in the region as possible.

The lives of those selected for SAISF participation were enriched when the group took a bus at OR Tambo International airport and went on an educational tour to Johannesburg. Our first visit was to the very interesting Wits University's Origin of Humankind centre where we learned more about our real roots! The Scibono Discovery centre was next, and here the variety of activities and challenges overwhelmed everyone to such an extent that tiredness evaporated and everyone felt recharged!

The results of the Stellenbosch region at SAISF were as follows:

NATIONAL EXPO RESULTS 2013				
Category	Names	Gr	Project title	Award/s
Energy: Alternative and renewable	Juvan Nel and Alitia Grey	11	Pressure energy – reflecting the future	Gold medal CBI-Electric: Mechanical Engineering award
Physics, astronomy and space science	Bianca Cromhout and Hannah Boyes	9	“Temperatuur en klankspoed – wat is die verband?”	Gold medal Junior category winner Aeronautical Society of South Africa
Environmental Management	Daniel Nuttall	9	Harvest the desert	Gold medal Junior category winner
Health Care and Sport Science	Francois du Plessis	9	The effect of different liquids on human teeth	Gold medal
Agricultural Sciences	Pieter Brand	9	The effect of fertilizer addition on the growth of oats	Silver medal Junior category winner Soil Science Society Junior award
Physics, astronomy and space science	Matylda Odachowska	10	Can saline water power our future?	Silver medal United States of America Friendship Book Prize
Microbiology and Biochemistry	Larissa Geldenhuys and Elanie van Schalkwyk	11	The five second rule	Silver medal HJ van der Bijl Awards
Animal and veterinary Sciences	Natasha Henning	9	Sable horn growth	Silver medal
Energy: Alternative and renewable	Francois du Plessis	12	Pond petrol	Silver medal
Social and Psychological Sciences	Desren Jacobs	11	The pen effect	Silver medal
Energy efficiency and energy conservation	Janré Hanekom	10	Being lean in going green	Silver medal
Engineering: Chemical, Metallurgical and Mining	Allision Arendse	10	Aqua acquisition	Silver medal
Environmental Science	Amber Clarke and Jade Stephens	10	Pollution kills, save the spills	Silver medal

Physics, astronomy and space sciences	Armand Lerm	10	How deep does a bullet go?	Silver medal
Innovation and Technology including Recycling	Angelique Olivier and Denise Coetzee	9	Heating through recycling	Silver medal
Agricultural Sciences	Carmen Malan	12	Alternative parasite management	Bronze medal Parasitological Society Award
Silver medal	Charlene and Christine Ile	12 11	Water... do it yourself	Bronze medal
Innovation and Technology including Recycling and Recycled materials	Bulelani Nkupane and Nandipha Boyce	11	The all in one, recycled school bag	Bronze medal
Food Sciences, Food Technology and Healthy Eating	Louise Koen and Daniéle Niehaus	9	Eggs-quisite, eggs-ellent, eggs-treme egg white	Bronze medal
Innovation and Technology including Recycling and Recycled materials	Christiaan Marais	9	Braai lamp stand	Bronze medal
Health Care and Sport Sciences	Leighlyn Solomons	9	Coffee gets you going	Bronze medal
Chemistry	Anri van Wyk	11	Oxygen concentration	
Medical Sciences – Human Biology	Brindley Fortuin	11	Say what?	
Agricultural Sciences	Wilna Pieterse and Déanie Brand	9	Big problems, small solutions	

Marketing

Like in previous years CDs with all the relevant regional info were sent out to invite schools to participate at regional level. Information and project guide books were distributed during training at workshops.

New schools were selected on merit and were visited by Mada du Toit and me, and encouraged to take part in 2014. These initial contact sessions will be followed up by workshops early next year.

Local newspapers in the various districts of the Stellenbosch region published dates of the regional expo and encouraged learners and teachers to become involved. After the regional and national competitions photos of participants were placed in the same district newspapers again.

International participation

Three projects were chosen for interviews for international participation, but unfortunately none of them were selected for this honour.

General

On behalf of our organising committee I want to thank Priscilla and her team, as well as Parthy and the Eskom Expo board of directors for their support during 2013. It has always been and remains a privilege to be part of the Expo family!



Regional science fair director, Stellenbosch
10 December 2013