



science
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Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

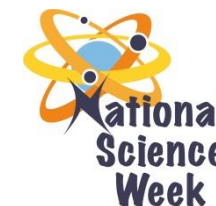


SAASTA
South African Agency for Science
and Technology Advancement

NATIONAL SCIENCE WEEK

“Facing the harsh realities of Climate Change”

29 July – 3 August 2019



Organisation:	Mangosuthu University of Technology	Project Leader:	Prof A M Msomi	Province/s:	KZN
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Activities	Date of Activity	Objective	How objective address	Duration	Venue	Person/s responsible
1. Effect of the earth's Greenhouse gases on air temperatures	29 July 2019	<ul style="list-style-type: none"> To provide basic knowledge about climate change to learners 	Experiments in the MUT Science	2 hours	MUT	Prof Bakare Chemical Engineering
2. Seasonal and long term atmospheric CO ₂ trends during the past 20 years and predictions of the future	29 July 2019	<ul style="list-style-type: none"> To make learners understand that they, together with their communities, are not exempt from being responsible in 	Classroom exercise in generate dataset and in data handling of trends	2 hours	MUT	Mr Oyieke Mr Kunene Mechanical Engineering

		<p>causing climate change.</p> <ul style="list-style-type: none"> • Generate dataset for summer and winter CO₂ uptake • Predict how life will be different if CC continues to occur 				
3. Potential impact of climate change in communities	29 July 2019	<ul style="list-style-type: none"> • To make learners debate on critical issues that need to be addressed to manage climate change 	PowerPoint presentations. Debates and posters	2 hours	MUT	Mr S Naidoo Civil Engineering
4. Calculation of carbon footprints based on learner energy usage	29 July 2019	<ul style="list-style-type: none"> • To equip learners with the skill of calculating carbon emissions • Applying the skill to daily activities in their homesteads and communities 	Calculations	2 hours	MUT	Dr Numbi Electrical Engineering
5. Policy Development	30 July 2019	<ul style="list-style-type: none"> • To learn to engage in robust discussions that will assist the management of climate change 	Gathering of thoughts on flipcharts	2 hours	MUT/School	Dr Ntshangase
6. Way Forward – Save Your Energy	30 July 2019	<ul style="list-style-type: none"> • To provide basic knowledge about saving energy 	Posters, videos and flyers	2 hours	MUT/School	Mr K Padayache Quantity Surveying

7. The impact of climate change on food security	30 July – 1 August 2019	<ul style="list-style-type: none"> • To create awareness on climate change and its impacts on food security • To educate local residents on extreme weather conditions (floods, droughts, high temperatures and greenhouse gas ect) • To educate local residents on soil fertility and mitigation strategies 	Through presentations/demonstrations – models and equipment display	08:00- 16:00 daily	Mkhanyakude District	Mr Manciya Ms Mthiyane Mr Tshabalala Ms Cirha Dr Ndou Ms Ndlovu Ms Kunene Mr Khawula
8. Tree Planting	1 – 2 August 2019	<ul style="list-style-type: none"> • Climate change impacts plant growth and forest lines in so doing dense forest are reduced to grassland which ultimately leads to soil erosion • Ultimately the primary producers /oxygen producers directly impact on the availability of usable gasses for 	<p>Improved number of indigenous trees available in academic environment</p> <p>Improved education towards importance of trees to economy and climate protection and sustainability.</p> <p>Improve aesthetics and ambience of liveable environment</p>	2 days	MUT/School	Prof Coopoosamy Dr Naidoo Prof Arthur Prof Anandraj

		<p>human consumption. Coupled with this is the increase of carbon sequestration which is known to thin the ozone layer resulting in radiation and prevalence of skin cancer among human population</p>				
9. The effect of climate change on human health	2 August 2019	<ul style="list-style-type: none"> • To create awareness on the effects of climate change on human health among the Umlazi community • To educate local residents on preventative strategies and reinforce existing programs 	Basic health monitoring workshops and Public lectures	2 hours	MUT/UMLAZI community hall	Mrs Ndlazi Mr Shangase Mr Khomo
10. Entrepreneurship in Green Technology	2 August 2019	<ul style="list-style-type: none"> • Show that work in the green economy is needed and prove that there are great entrepreneurship opportunities in green economy 	Innovation exhibitions	2 hours	MUT	Mr Pons

		businesses. Show that MUT has used its research and innovation to assist the poor in the fields of green technology.				
11. Raising awareness of environmentally sound practices	1 August 2019	<ul style="list-style-type: none"> • Constitutional right to a clean environment S. 24 • The link to S. 27 Health for all in S.A. • NDP – Health Promotion Chapter 10 • EH Norms and Standards, 2015 – Complaints procedure • EHP's oversight role in EH Investigations – Health Act 	Develop visual material (poster) highlighting the above and make it available at EH offices, hopefully clinics and Sizakela offices? Reach out to schools and shopping centres phase 2 Commemorating Environmental Health events	1 day	Port Shepstone	Dr Poswa Mrs Mtshengu Mrs Bigara

