



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

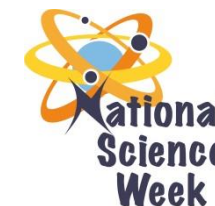


SAASTA
South African Agency for Science
and Technology Advancement

NATIONAL SCIENCE WEEK

Deepening our Democracy through Science

28 July – 4 August 2018



Organisation:	Johannesburg City parks and Zoo	Project Leader:	Mrs S. Magolo	Province/s:	Gauteng
Connect with us	Website:	www.jhbcityparks.com			
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National Science Week events and activities:

DATE & TIME	VENUE & LOCATION	ACTIVITY	AUDIENCE	CONTACT DETAILS	BOOKINGS REQUIRED?
01/08/2018 08:00-12:00	Dorothy Nyembe Environmental Education Centre Corner Matlala & Sibeko Drive Dobsonville Soweto	<p>1. Your Trash is my Treasure:</p> <p>Learners will be divided into three groups doing different activities under this theme. The first group will be making a recycled lamp, the second group will be making a broom and the third group will be making a Christmas tree. All the groups will be using waste materials and turn them into something of value. They will give</p>	Learners	Miss M. Moonyane 0718686916 moliehim@gmail.com	NO This event is invite-only

their products a market value by putting a price on them and calculating how much profit they can make by creating treasure out trash.

2. Foreign Exchange Education:

This activity provides an opportunity for learners to participate in a simulated foreign exchange market. As they experience the need to exchange currencies to purchase foreign goods, they learn about the difference between the domestic and international values of a currency. The learners will be educated about how our currency is linked to political instability. Moreover, how political leadership influence the weakening or strengthening of Rand. Furthermore learners will gain an understanding on how climate change and reshuffling of finance minister affect the strength of the currency (Rand).

3. The technological future eyes:

Learners will be engaged in the hands on activity on how to fly a drone in order to get aerial and geographical photography. Moreover, the learners will be shown a video on how

drones can be used to conserve aquatic life; then after be in engaged in a quiz exercise.

4. The future technologies:

This activity will show case the importance of sustainable energy and how it can be used to fight climate change by reducing the carbon foot print. Learners will be engaged in the hands on activity of building hydrogen fuel cell car, windmill generator and tin solar panel. Learners will be divided into groups. Each group will count and check if they have all the components required to design and build the hydrogen fuel cell car, windmill generator and tin solar panel. The learners will use rulers to measure the required measurements of the resources.

5. The Robotic Evolution:

The activity will showcase the evolution of human science, from humans doing the labour to robots taking over. Learners will be educated on the value of robots in solving environmental, social, and economic and health issues. Learners will be engaged in the hands on activity of Dr Panic: "How a robot can be the

		<p>next Surgeon?”. Learners will have to follow instructions from Dr Panic on how to perform human surgery. In addition, learners will be engaged in the hands on activity of how to build robots from scratch e.g., Dynamo robot and solar rover.</p> <p>6. Straw Bridge Design Challenge:</p> <p>Through this activity, learners will get to know the different types of bridges and also why they are made in particular shapes. Seeing, touching, and sketching ideas create pictures in the mind’s eye, helping learners construct, understand, and apply mathematical ideas during this activity by measuring and counting.</p>			
		<p>1. Mini Popcorn Machine:</p> <p>Learners will learn on different sources of energy and why it is crucial to use electivity sparingly as a way of conserving natural resources through other means such as use of solar energy.</p> <p>2. The robotic evolution:</p> <p>The activity will showcase the evolution of human science, from humans doing the labour to robots taking over. Learners will</p>	<p>Learners</p>	<p>Miss M. Moonyane</p>	<p>No.</p>

<p>02/08/2018 08:00-12:00</p>	<p>Johannesburg Zoo</p>	<p>be educated on the value of robots in solving environmental, social, and economic and health issues. Learners will be engaged in the hands on activity of Dr Panic: "How a robot can be the next Surgeon?" Learners will have to follow instructions from Dr Panic on how to perform human surgery. In addition, learners will be engaged in the hands on activity of how to build robots from scratch e.g., Dynamo robot and solar rover</p> <p>3. The future technologies:</p> <p>This activity will show case the importance of sustainable energy and how it can be used to fight climate change by reducing the carbon foot print. Learners will be engaged in the hands on activity of building hydrogen fuel cell car, windmill generator and tin solar panel. Learners will be divided into groups. Each group will count and check if they have all the components required to design and build the hydrogen fuel cell car, windmill generator and tin solar panel. The learners will use rulers to measure the required</p>		<p>0718686916 moliehim@gmail.com</p>	<p>This event is invite-only</p>
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measurements of the resources.

4. Foreign Exchange Education:

This activity provides an opportunity for learners to participate in a simulated foreign exchange market. As they experience the need to exchange currencies to purchase foreign goods, they learn about the difference between the domestic and international values of a currency. The learners and community members will be educated about how our currency is linked to political instability. Moreover, how political leadership influence the weakening or strengthening of Rand. Furthermore learners will gain an understanding on how climate change and reshuffling of finance minister affect the strength of the currency (Rand).

<p>03/08/2018 08:00-12:00</p>	<p>Cosmo City, Tanzania Avenue, Cosmo City Roodeport, 2188</p>	<p>1. Effects of Anthropogenic activities on wetland: A presentation will be conducted on the importance of wetlands using animals and plants posters and charts. A healthy and degraded wetland model will be created to showcase the negative impact of human activities on wetlands. They will also identify and record interactions between birds found in wetlands and a variety of plants and animals.</p> <p>2. Table Fan: The activity will demonstrate how a battery gives power to a motor and the chemical energy converted to kinetic energy.</p> <p>3. Foreign Exchange Education: This activity provides an opportunity for community members to participate in a simulated foreign exchange market. As they experience the need to exchange currencies to purchase foreign goods, they learn about the difference between the domestic and international values of a</p>	<p>The General Public</p>	<p>Miss M. Moonyane 0718686916 moliehim@gmail.com</p>	<p>No. Communities will be invited to the event through word of mouth as well as other media platforms.</p>
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currency. The community members will be educated about how our currency is linked to political instability. Moreover, how political leadership influence the weakening or strengthening of Rand. Furthermore participants will gain an understanding on how climate change and reshuffling of finance minister affect the strength of the currency (Rand).

**4. The future farming technology:
(hydroponics):**

The community members will be educated about the innovative technologies that will show case hydroponics: The method of growing plants without soil, using mineral nutrient solutions in a water solvent in order to have access to health care, food and social security. They will be engaged in the hands on activity of planting bean seeds in a small pot that they will take back home: In order for them to learn and observe the process of seed germination

5. The technological future eyes: Partakers

		<p>will be engaged in the hands on activity on how to fly a drone in order to get aerial and geographical photography. The participants will be shown a video on how drones can be used to conserve aquatic life; then after be in engaged in a quiz exercise.</p> <p>6. The future technologies:</p> <p>This activity will show case the importance of sustainable energy and how it can be used to fight climate change by reducing the carbon foot print. The community members will be engaged in the hands on activity of building hydrogen fuel cell car, windmill generator and tin solar panel.</p>			
04/08/2018 08:00-12:00	Ivory Park & Alexandra	Out of school youth will implement edutainment programmes (drama) on careers found in Johannesburg City Parks and Zoo	Community	Miss M. Moonyane 0718686916	No. Communities will be invited to the

				moliehim@gmail.com	event through word of mouth and door to door flyer invite as well as various media platforms.
30/07/18 - 04/08/18 08:00 -15:00	Various malls, community centres and public open spaces	STEMI Career exhibition will be displayed and manned at shopping centres and other public amenities to stimulate interest and create awareness of science, technology, engineering and mathematics careers including STEM research careers including biological science careers.	Community	Miss M. Moonyane 0718686916 moliehim@gmail.com	Yes – Mall bookings