

# PROGRAMME

## NATIONAL SCIENCE WEEK 2021

### MAKING IT POSSIBLE THROUGH SCIENCE



#### 1 – 7 AUGUST 2021

Online events, virtual exhibitions and tours, webinars, documentaries and more science in South Africa



*Making sure  
it's possible.*

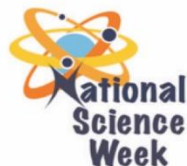
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science & innovation

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



SAASTA  
South African Agency for Science  
and Technology Advancement

**STAY  
SAFE**

VACCINATE TO SAVE SOUTH AFRICA

TOGETHER WE CAN BEAT CORONAVIRUS

## PRE-NATIONAL SCIENCE WEEK

30 JULY 2021 (Friday)

TIME	TYPE OF ACTIVITY	DESCRIPTION OF ACTIVITY	HOST INSTITUTION	ONLINE LINK
10:00	Webinar	<p>ARTIFICIAL INTELLIGENCE (AI) AND 4IR IN AGRICULTURE : TACKLING FOOD INSECURITY</p> <p>How technologies are changing the future of work - understanding 4IR and the use of Artificial Intelligence in Agriculture to tackle food insecurity. <b>Qinisani Qwabe (Rural Development)</b></p>	Nelson Mandela University (NMU)	<a href="#">Artificial intelligence &amp; 4ir in agriculture: tackling food insecurity</a>

## NSW FOCUS WEEK (1 – 7 AUGUST):

02 AUGUST 2021 (Monday)

TIME	TYPE OF ACTIVITY	DESCRIPTION OF ACTIVITY	HOST INSTITUTION	ONLINE LINK
10:20	Documentary	Physics in my village: a Biogas documentary	Univen & HSRC	<a href="#">Biogas Documentary - Univen</a>
11:00	Webinar	Essential facts about Covid-19: The disease, the responses and an uncertain future - For South African Learners (Grade10-Grade12) and Teachers	Academy of Science of SA	<a href="#">Essential facts about Covid-19</a>
12:30	Webinar	The webinar will discuss the new covid-19 variants which have emerged in Africa as the continent records a new peak in infections. The virus mutations are not unusual, but those that are more infectious are worrisome <b>Dr. Hazel Mufhandu</b>	North West University - Mafikeng	<a href="#">New covid-19 variants which have emerged in Africa</a>
13:00	Discussion	In Conversation with <b>Prof Refilwe Phaswana-Mafuya</b> : Learning curves from my non-linear epidemiology career journey	Academy of Science of SA	<a href="#">In Conversation with Prof Refilwe Phaswana-Mafuya</a>
14:00	Webinar	How blue skies research created billions of Rands worth of impact in South Africa - SANSA - emphasis on the role that Space Weather Research has played in addressing a global challenge that has domestic (South African) impact.	South African National Space Agency (SANSA)	<a href="#">How blue skies research created billions of Rands worth of impact in South Africa - SANSA</a>
17:00	Webinar	<a href="#">Crop breeding</a> and conservation for the South Africa of today and the future – The role of ARC Agricultural Research Council (ARC)	Agricultural Research Council (ARC)	<a href="#">Crop breeding - ARC</a>
	Recorded exhibitions	AET Africa	HSRC	<a href="#">AET Africa</a>
		Dr Petro Erasmus - Math Whartels	HSRC	<a href="#">Math Whartels</a>
		Astronomy - Combining multiple topics of physics to learn more about stars	NWU Potch	<a href="#">Learn more about stars</a>
		Animations on Covid-19	UCT	<a href="#">Covid-19 Animations (English)</a>

		Seeing how energy and matter flows and is recycled from primary producers (autotrophs) to primary, secondary and tertiary consumers.	LabXchange	<a href="#">Covid-19 Animations (Xhosa)</a>
		Impact of changes to trophic pyramids		<a href="#">Energy and matter</a>
		How does an Electric Motor work? (DC Motor)		<a href="#">Impact of changes to trophic pyramids</a>
		The NSTC documentary will showcase innovations improving the livelihood of people.	National Science And Technology Council (Zambia)	<a href="#">How does an Electric Motor work? (DC Motor)</a>
19:00	Live activity	Star gazing at Mahikeng Observatory: <b>Prof. Thebe Medupe</b>	North West University Mafikeng	<a href="#">Science improving livelihood in Zambia</a>
				<a href="#">Star gazing - Mafikeng</a>

### 03 AUGUST 2021 (Tuesday)

TIME	TYPE OF ACTIVITY	DESCRIPTION OF ACTIVITY	HOST INSTITUTION	ONLINE LINK
11:00	Documentary	<a href="#">Rising stars: the documentary</a> : an astronomical journey from our beginnings through the development of astronomy research in South Africa and looks at what the future of astronomy holds for the country.	South African Astronomical Observatory (SAAO)	<a href="#">Rising stars: the documentary</a>
12:00	Webinar	<i>From the discovery of the Higgs boson to modelling COVID-19: The role of AI.</i> <b>Professor Bruce Mellado</b>	Wits University	<a href="#">From the discovery of the Higgs boson to modelling COVID-19: The role of AI</a>
12:00	Webinar	Bolepi dinaledi and Covid-19 pandemic: <b>Dr. Motheo Koitsiwe</b>	NWU MAHIKENG	<a href="#">Dinaledi</a>
12:10	Webinar	A perspective on how scholars perceive attitudes to science in policymaking in South Africa. <b>Dr P Sekhejane (HSRC), Prof Mamphweli (Stellenbosch), Prof K Motaung (DUT), Prof J Botai SAWS), Prof S Mpandeli (WRC) &amp; Dr M Gastrow (HSRC)</b>	University of Venda (UNIVEN)	<a href="#">A perspective on how scholars perceive attitudes to science in policymaking in South Africa</a>
14:00	Webinar	<b>Crop Breeding</b> – South Africa’s sustainability in the face of climate change and response to global competition	Agricultural Research Council (ARC)	<a href="#">South Africa’s sustainability in the face of climate change and response to global competition Link</a>
14:00	Live exhibition	Robotics : Year of Science : Fruit and Vegetables	UNISA (I-SET)	<a href="#">Fruits and vegetables - UNISA</a>
15:00	Webinar	Tshwane university of Technology representatives will give insight on the effect of COVID 19 to the mental health if the institution specifically on students. The lecture will be for 20 min and the 40 min of roundtable discussions		<a href="#">Effect of Covid-19 to the mental health</a>
17:30	Webinar	The Why and How of Aerospace Propulsion Research at UKZN. Prof Michael Brook	University of KwaZulu-Natal (UKZN)	<a href="#">The Why and How of Aerospace Propulsion Research at UKZN</a>
	Recorded exhibitions			

## 04 AUGUST 2021 (Wednesday)

TIME	TYPE OF ACTIVITY	DESCRIPTION OF ACTIVITY	HOST INSTITUTION	ONLINE LINK
09:00	Webinar	The impact of Covid 19 on the farming communities, the contribution that Agri-SA and ARC has done in the farming communities, New technology or scientific way of farming, Crop health. <b>C van der Rheede, Dr Lampbrecht, Dr E Cruywagen, Dr J Mulabisana, Dr R Pierneef</b>	Ditsong Museum	<a href="#">The impact of Covid 19 on the farming communities</a>
10:00	Webinar	<i>How do we know if and when science makes a difference?</i> Discussion with South African Journal of Science (SAJS) authors	Academy of Science of SA	<a href="#">How do we know if and when science makes a difference?</a>
10:00	Poetry	Webinar based on science poetry	SAASTA	<a href="#">Science Poetry</a>
11:00	Documentary	Aerodynamics Manufacturing & Design & Weight management Electric Components of the solar car. Telemetry, electronics & Race strategy. Technology behind the NWU Solar Car-Naledi 2.0	North-west University Potchefstroom	<a href="#">Technology behind the NWU Solar Car-Naledi 2.0</a>
12:00	Webinar	<b>Vegetables and Medicinal Plants</b> The role of vegetables and medicinal plants in enhancing food, nutrition and human health security in South Africa	Agricultural Research Council (ARC)	<a href="#">Vegetables and Medicinal Plants</a>
12:00	Webinar	The impact of covid-19 on food security in South Africa <b>Prof. Olubukola Babalola</b>	North-west University - Mafikeng	<a href="#">The impact of covid-19 on food security in South Africa</a>
12:00	Documentary	Science, Technology and Innovation in a rural context: Highlights from the University of Limpopo	University of Limpopo	<a href="#">STI at UL</a>
13:00	Webinar	UNIZULU Covid-19 research: The importance of uncertainty in many scientific predictions, and relevance of this to environmental controversy. Presenting scientific facts base on the scientific research on COVID-19 and looked at human behaviour towards the pandemic outbreak.	University of Zululand (UNIZULU)	<a href="#">UNIZULU Covid-19 research</a>
17:00	Webinar	Oceans and People: Effects of anthropogenic activities on marine biodiversity. <b>Nozipiwo Hambaze</b>	SAEON Elwandle	<a href="#">Oceans and People</a>  Meeting ID: 988 1205 8794 Passcode: 921062
17:30	Webinar	MYSTERIOUS MARION ISLAND: Developing and Testing Radio Astronomical Equipment in the Cold. <b>Ms Tankiso Moso</b>	University of KwaZulu Natal (UKZN)	<a href="#">MYSTERIOUS MARION ISLAND</a>
	Videos	How I Harnessed the Wind William Kamkwamba (MALAWI)	TED Talk	<a href="#">How I Harnessed the Wind</a>
		Why Do We Have Different Seasons? - Did you know that the Sun's light shines differently on Earth at different times of the year? In this visualization watch as the Earth orbits the Sun, rotating, like a slightly tilted, spinning top.	LabXchange	<a href="#">Why Do We Have Different Seasons?</a>

## 05 AUGUST 2021 (Thursday)

TIME	TYPE OF ACTIVITY	DESCRIPTION OF ACTIVITY	HOST INSTITUTION	ONLINE LINK
10:00	Webinar	The links between waste management and air quality	North-west University Potchefstroom	<a href="#">Waste management and air quality</a>
11:00	Documentary	Vaccines: Everyday fears and answers: The film uncovers, normalises and responds to Khayelitsha-based residents' concerns around COVID-19 vaccination.	University of Cape Town (UCT)	<a href="#">Click here for more</a>
12:00	Webinar	The role of 4IR during Covid-19 pandemic. Technology has played an important role in responding to coronavirus pandemic. <b>Dr. Francis Lugayizi</b>	North-west University Mafikeng	<a href="#">The role of 4IR during Covid-19 pandemic</a>
13:00	Webinar	Food security and nutrition: contributing to sustainable development goals	SAASTA / CoE in Food Security	<a href="#">Food security</a>
13:00	Live exhibition	Space science and Technology	University of Zululand (UNIZULU)	<a href="#">Space Science</a>
14:00	Lecture	<a href="#">Dinosaurs of Africa</a> . The fossils have been discovered across the continent – from the Sahara Desert to the Karoo. Dinosaurs of Africa outlines the different dinosaur's species, including fish-eating, sociable, and predatory dinosaurs, as well as those that were cannibals. <b>Prof. Anusuya Chinsamy-Turan</b> is a palaeontologist based at the University of Cape Town.	Academy of Science of SA	<a href="#">Dinosaurs of Africa</a>
17:00	Webinar	<b>Fisheries and its relation to sustainable use of ocean resources:</b> The fishing issue and its relation to sustainable use of ocean resources: Ocean ecosystems exist parallel to human society.	SAEON Egangasini	<a href="#">Fisheries and its relation to sustainable use of ocean resources</a> Meeting ID: 974 8786 4215 Passcode: 107056
17:30	Webinar	LIFTING BACK THE WATERS: Adventures in Southern African Marine Geology. <b>Professor Andrew Green</b>	University of KwaZulu Natal (UKZN)	<a href="#">Lifting back the waters</a>
	Recorded Exhibitions	Pressure Science Show	Sci-Bono Science Centre	<a href="#">Science show</a>
		Maths Thinker – Measurement – Grade 6 - 12:00 - Experiment – Test tube rocket -	Cape Town Science Centre	<a href="#">Maths Thinker</a>
		Maths Thinker – Measurement – Grade 7 Exhibit – Nice Dice -		<a href="#">Maths Thinker grade 7</a>
		Robotics	SANSA	<a href="#">Robotic</a>
		Space Science Virtual Tour		<a href="#">Space Science virtual tour</a>

## 06 AUGUST 2021 (Friday)

TIME	TYPE OF ACTIVITY	DESCRIPTION OF ACTIVITY	HOST INSTITUTION	ONLINE LINK
09:00	Documentary	Air Quality	North West University Potch	<a href="#">Air Quality – NWU Potch</a>
09:00	Live engagement	<i>Indigenous Knowledge System (IKS)</i> <b>Prof Tshisikhawe, Adv Dr Matshidze</b>	University of Venda (UNIVEN)	<a href="#">UNIVEN IKS</a>
10:00		<i>Renewable Energy Recorded Exhibition</i> <b>Dr TS Mulaudzi, Dr EN Maluta</b>		<a href="#">Renewable Energy Exhibition and the Recorded Exhibition</a>
10:35		The Secret of Success: Star Schools in the Vhembe District: <b>Dr S Kaheru</b>		<a href="#">The Secret of Success: Star Schools in the Vhembe District</a>
10:30	Webinar	The undergraduate student will have a 30 min quizzes based on the current world COVID 19 status quo while basing their facts on science. Prizes will be provided for three winners in the quiz gaming.	Tshwane University of Technology	<a href="#">Join TUT webinar</a>
11:00	Webinar	Mechanisms, funding and state capability for poverty and inequality reduction (post-Covid) in South Africa	Academy of Science of South Africa (ASSAf)	<a href="#">Mechanisms, funding and state capability for poverty and inequality reduction (post-Covid) in South Africa</a>
12:00	Webinar	Multiple losses & complication in grief as mental health concern during covid-19 pandemic: <b>Prof. Alida Herbst; Dr. Nelia Drenth; Ms Annette De La Porte; Prof Thobeka Nkomo</b>	North-west University (NWU) Mafikeng	<a href="#">Multiple losses &amp; complication in grief as mental health concern during covid-19 pandemic</a>
12:00	Documentary	<b>Profiling women in Science</b>	Academy of Science of South Africa (ASSAf)	<a href="#">Profiling women in Science</a>
13:00	Webinar	<b>Advances in Crop Protection</b> The role of plant bioactive compounds and biological control	Agricultural Research Council	<a href="#">Advances in Crop Protection</a>

## 07 AUGUST 2021 (Saturday)

TIME	TYPE OF ACTIVITY	DESCRIPTION OF ACTIVITY	HOST INSTITUTION	ONLINE LINK
09:00	Learner virtual Camp	Misava Yile ku Cinceni – My World is Changing	SAEON	<a href="#">Misava Yile ku Cinceni – My World is Changing</a> Meeting ID: 917 3327 4712 Passcode: 277265
11:00	Virtual Science Show	Virtual Science Show	Cape Town Science Centre	<a href="#">Cape Town Science Centre virtual show</a>
12:00	Documentary	Isinuka healing water	Walter Sisulu University	<a href="#">Isinuka healing water</a>