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NSTF
S.E.T. for socio-economic growth



CALL FOR CONTRIBUTIONS: NSTF-proSET STEMulator 2021 Competition – Prizes to be Won!

Dear NSTF member representatives,

The [STEMulator](#) is online, for you to **Explore > Discover > Learn!**

The [STEMulator.org](#) e-learning platform is freely available on the internet to **attract learners/students parents and educators into the exciting STEM world** and **provide guidance on fields of study and careers**. The [STEMulator](#) is a virtual world, full of animated content, from beating hearts to powerful jet engines, where learners (and others) can **Explore > Discover > Learn**, “**The Hidden World Revealed**”.

The STEMulator is a proudly South African platform, unique in the world as far as we know. It is an initiative and flagship project of NSTF-[proSET](#), developed under the leadership of the NSTF-[proSET Committee](#). In 2020, a competition was launched for proSET members of NSTF only. Now we are inviting all of you, our members ([Current NSTF Members](#)) to join in and make a difference. Everyone employed by or belonging to NSTF member organisations can enter the competition. Send us content/contributions for the STEMulator and stand a chance to win one of several cash prizes.

Five individuals in NSTF member organisations stand a chance to win R12 000 (twelve thousand rand) each. The prize is for the individual who finds/contributes the quality content to feature on the STEMulator. However the organisation will be fully acknowledged in publicity and on the STEMulator.

If the contributed content is the IP of your institution/organisation, please include a letter of authorisation from your institution/organisation that the material may be shared on the STEMulator, and state how the originator should be acknowledged.

We look forward to receiving your entries. **Closing Date is 20 July 2021**. Look out for our communication about the winning contributions by the end of September 2021. We wish you all the best with your contribution.

PLEASE FORWARD THIS NOTICE TO EVERYONE IN YOUR ORGANISATION

Yours sincerely,

Ms Jansie Niehaus
Executive Director (NSTF)

Mr Dawie Botha
Co-chairperson (proSET)

NSTF and proSET

The [National Science and Technology Forum \(NSTF\)](#) has a [25 year history](#) of promoting science, engineering and technology (SET) and innovation in South Africa and is the most representative stakeholder body in South Africa, representing [seven membership sectors](#) of which proSET is one. The proSET sector represents about [40 professional bodies and learned societies](#) active in the field of SET.

Why should STEMulator be of interest to NSTF organisations?

STEMulator is a unique tool for young people in general as well as all those who are curious and eager – to **Explore > Discover > Learn** about science, engineering and technology, as well as about various SET professions. Furthermore, STEMulator is a way to promote SET (or STEM)* education, a focus on SET subjects, SET career information and where to study in SET-related fields. This is a chance for you and your organisation to contribute and feature on the STEMulator online as well as on memory sticks that are being distributed to schools. In doing so, join hands with NSTF in promoting STEM and creating a better understanding of SET which is at the heart of a healthy economy and the success of a healthy and thriving society.

The career information on the STEMulator is important for young people who are considering a career, but also for decision makers at all levels, including society and government. The STEMulator highlights the importance of SET in the world of today – without science and the SET professionals we will not survive as a country, nor as humanity.

How does STEMulator work?

STEMulator features a [virtual landscape](#) with **clickable** objects or areas, each containing objects that open up and display inner structures and working parts. The first fields that feature in this virtual landscape include [automotive engineering](#), [agriculture](#), [energy](#), [human physiology](#), [hospitals](#), the [natural environment](#) and [construction](#). Each of these fields can be explored by a mere click (try the hyperlinks in this text) which opens up demonstrations with related descriptions and information. The users of STEMulator will find further useful information in the STEMulator to choose a career, enhance a school project or facilitate understanding of the all-important SET sector.

Example: **Click** on the [mountain and clouds](#) to reveal the natural environment, then **click** on individual items to reveal pictures, diagrams, animations and information on rain and the water cycle, geology and the rock cycle, the sun and solar system, and more.

Careers: At the bottom of each page is a window listing various related career options, also clickable to provide descriptions of SET careers with hyperlinks through to learning institutions offering relevant courses.

Teachers can use the STEMulator in the following ways:

The STEMulator boasts a virtual school which is currently being populated with curriculum-related content for Intermediate phase, Senior phase and FET phase. Teachers will find everything in its place.

Teachers are also able to use the STEMulator:

- in the classroom with a central computer and data projector;
- in a computer centre or using tablets, allowing learners to explore individually or in groups;
- as a source of information for the teacher when setting projects, or preparing daily teaching and learning material.

*STEM = science, technology, engineering and mathematics. This is the most common acronym used. SET = science, engineering and technology (but includes mathematics as a science).



How to enter the proSET STEMulator 2021 competition

The [STEMulator](#) is continually expanding. New zones and items are being added all the time. Now it's your turn to submit any STEM-related material for inclusion. Think mining, astronomy, chemistry, zoology, botany, climate, environment, engineering and technology etc. Then there are the 4th Industrial Revolution, computers, automation, and many more related topics.

1. Complete the [attached form](#).
2. Submit any suitable animated material, be it a clever gif or a compact video clip, demonstrating or explaining some concept, inner workings, process or activity. (See note below on YouTube material) – Clearly acknowledging any source, if applicable.
3. Send your email with the completed form, with your material as an attachment/s, to the NSTF offices for attention of Ms Gabriela Mankune at gmankune@nstf.org.za.
4. The Subject of your email must be “NSTF STEMulator Competition 2021”.

Terms and Conditions for submitting a contribution to the STEMulator and thereby entering this 2021 proSET competition:

1. Only members of organisations that are themselves paid-up members of the NSTF, can enter the competition;
2. The material must clearly relate to the STEM world.
3. The submission must be visual material such as diagrams, animations, gifs and compact videos that can be uploaded on the [STEMulator](#) website, accompanied by no more than 200 words of explanatory text suitable for a high school learner. (See the form where you provide a summary and description/s).
4. By entering you give your permission to proSET and NSTF to use your material on the [STEMulator](#) platform, irrespective of whether your entry wins the [STEMulator](#) competition or not.
5. All contributions and sources will be clearly acknowledged.
6. Prizes will only be awarded to suitable and deserving material.
7. The judging panel will be the proSET committee.

YouTube – the [STEMulator](#) supports hyperlinks through to selected YouTube content. Your referrals would be most welcome. However there are stand-alone versions of the [STEMulator](#) that limit the file sizes of the content. The preferred format is short animations, usually gif files. We can compress mpeg and mp4 files.



About the NSTF

The [National Science and Technology Forum](#) (NSTF), established in 1995, is a broadly-representative stakeholder body for all science, engineering and technology (SET) and innovation organisations in South Africa, which seeks to influence policy formulation and delivery.

The [NSTF Awards](#) are unique in SA, recognising the outstanding contributions of individuals and groups to SET and innovation.

The [science bursaries](#) page provides information on bursaries and bursary providers for science, engineering and related studies.

[STEMulator.org](#) attracts learners and students to the exciting world of science, technology, engineering and mathematics (STEM). It provides a virtual world full of stimulating content to excite and inform the youth, including STEM career guidance. Established under the auspices of the [NSTF proSET membership sector](#) (Professionals in science, engineering and technology).

Disclaimer

The NSTF has taken all practical measures to ensure that the material contained in this newsletter is correct. The NSTF reserves the right to make changes as it deems necessary.

Privacy

Registration details submitted to the NSTF will be treated confidentially and will only be used by NSTF to communicate with its members and subscribers.

For more information

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