



Explore the interactive digital landscape of the STEMulator

A virtual landscape to click on different systems and landscapes and understand how things work.

This South African initiative aims to get youngsters excited about the science, technology, engineering and mathematics (STEM) world and careers. Conscious of the shortage of candidates for STEM careers, the STEMulator aims to encourage interest in STEM opportunities by providing a digital virtual landscape. Here, children can explore, discover, and learn about the natural and built environments and the career possibilities that exist.

The STEMulator reveals the hidden world of many different parts of our lives, from human hearts to jet engines, marine life, satellites, and home energy systems, among many other places, spaces, and things.

The STEMulator creates an awareness of, and stimulates an interest in, the fascinating STEM world. The virtual landscape, which is expanding with more content, covers





mountains, meadows and rivers, farms and agriculture, machines and food produce, cars and their components, and hospitals and their elaborate equipment. Ever wondered how an ultrasound, X-ray, CT scanner or MRI machine really works? Click on them to find out.

When you visit the online website, you can virtually wander off in any direction you choose. From the farm to the orchard, to the orange tree, to orange juice in the fridge. Or

from the wheat fields in the farm to the loaf of bread in the pantry.

Ever wondered how an aeroplane works? Or what it looks like if you take it apart? The STEMulator does just that for you. Piece by piece you can see all the different parts that come together in one of the most powerful and useful modes of transport we have on Earth today.

Every page includes a photo, a labelled diagram, a fascinating animation, and brief explanatory text. Each page also contains information about related careers and professions, and even about the local institutions offering the relevant courses you might need to pursue. What makes the STEMulator extra special is that it is homegrown, truly South African. As it expands, it will include video clips of experiments in the school science



laboratory landscape. Even the connections with the South African curriculum will be available for teachers to locate relevant material for different grades.

What if you cannot access the internet to explore the STEMulator online? Don't stress. The STEMulator has been loaded onto USB memory sticks for distribution to schools across the country.

The STEMulator is an exciting new platform for learning about how stuff works, and for finding subjects you like and maybe even your future career. Take a moment to visit the website: <https://stemulator.org/aboutus/#s-home> or email: info@stemulator.org for more information.

CURRICULUM CORNER

LIFE ORIENTATION: GRADE 10-12

- Career and career choices
- Subjects, career fields and study choices: decision-making skills
- Competencies, abilities and ethics required for a career



Academy of Science of South Africa (ASSAf)

ASSAf Research Repository

<http://research.assaf.org.za/>

A. Academy of Science of South Africa (ASSAf) Publications

D. Quest: Science for South Africa

2022

Quest Volume 18 Number 1 2022

Academy of Science of South Africa (ASSAf)

Academy of Science of South Africa (ASSAf)

Academy of Science of South Africa (ASSAf), (2022). Quest: Science for South Africa, 18(1).[Online] Available at:<http://hdl.handle.net/20.500.11911/234>

<http://hdl.handle.net/20.500.11911/234>

Downloaded from ASSAf Research Repository, Academy of Science of South Africa (ASSAf)