Explore STEM with STEMulator: A gift to the youth of the nation

The National Science and Technology Forum (NSTF) is excited to launch the latest version of STEMulator, a free virtual platform designed to spark interest in STEM (science, technology, engineering and mathematics) among learners. To celebrate National Youth Day on the 16th of June 2024, the NSTF is gifting this innovative resource to South African youth, allowing students, parents, educators, and communities a unique opportunity to explore the world of STEM.

Dive into the World of STEM at stemulator.org

STEMulator.org allows learners to virtually explore a wide range of STEM fields, from engineering marvels to scientific phenomena. With just a click, students can dive into the inner workings of a car engine, understand the machinery behind agricultural harvesting, or uncover the chemistry of everyday items like bread.

This immersive experience provides a behind-the-scenes view of STEM careers and helps learners connect their interests to real-world applications.

“The platform is designed to make learning fun and engaging,” says Richard Gundersen, Chief Instigator at STEMulator. “Learners can interact with animated objects and explore clickable areas to gain deeper insights into various STEM concepts. This dynamic approach encourages curiosity and perseverance in subjects like math and science, fostering a lifelong love for learning.”

Safe and Educational Environment

STEMulator.org offers a secure online space where children can explore STEM topics safely. Parents can rest assured that their children are engaging with high-quality, educational content that supports their academic growth and future career aspirations.

Supporting your child's interest in STEM is crucial. STEMulator provides valuable career guidance, helping students understand the pathways available in STEM fields. This resource equips parents with the tools to guide their children's educational choices and nurture their passions.

Complement Traditional Learning

STEMulator is an excellent supplement for traditional teaching methods. It enhances classroom learning by providing interactive, curriculum-aligned content that brings STEM subjects to life. Educators can integrate STEMulator into their lesson plans, using it to reinforce concepts taught in math and science classes.

Additionally, the platform offers extensive resources and support for educators. Teacher guidance notes and classroom activities are available to help seamlessly incorporate STEMulator into daily teaching practices. By adopting this initiative, schools can enrich their STEM education offerings and inspire students to pursue STEM-related careers.

Enriching STEM Curriculum

Implementing STEMulator in your school can help attract and retain students with a keen interest in STEM. “This interactive tool not only supports the existing curriculum but also provides an engaging way for students to explore potential career paths, ultimately fostering a robust STEM talent pipeline”, explains Gundersen.

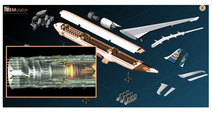
STEMulator, available on stand-alone memory-sticks, is particularly beneficial for schools in rural and underprivileged communities. It promotes STEM literacy and accessibility, ensuring that all students, regardless of their circumstances, have the opportunity to explore and excel in STEM fields. This initiative helps bridge the educational gap and prepares students for a technology-driven future.

Inspiring Future Innovators

Communities play a vital role in supporting STEM education. By encouraging the use of STEMulator, community members can help inspire youth to explore STEM fields and understand their significance in everyday life. This platform highlights career opportunities in areas such as agriculture, electrification, and solar energy, which can directly benefit the community.

The STEMulator initiative has the potential to inspire a new generation of STEM professionals. By fostering interest in these fields, communities can ensure a steady supply of skilled individuals who can contribute to local development and innovation.

Key Features of STEMulator



- **Virtual landscape:** Explore at leisure, all things STEM, from pumping human hearts to jet turbines, microbes to mountains, nature to agriculture, using its novel visual navigation system.
- **Virtual school:** **The school features science and biology classrooms for grades 4-12 with curriculum-aligned content and teacher guidance notes, and soon to include maths content too. GOING LIVE ON YOUTH DAY 16 JUNE.**
- **Career guidance:** STEMulator helps learners connect their interests to potential careers, providing valuable insights into career opportunities.
- **Freely available and proudly South African:** A key aspect of the STEMulator is its accessibility, ensuring that all learners, regardless of circumstances, can benefit from this innovative resource.
- **Forever expanding:** New material is being added continuously, with new sections such as mines and transport under construction.

Join Us in Shaping the Future of STEM Education

The NSTF envisions a future where every learner has access to STEMulator, empowering them to make informed subject and career choices. Whether they pursue a career in STEM or another field, STEMulator equips them with critical thinking and problem-solving skills essential for success.

Visit STEMulator.org today and embark on a journey of discovery.

Visit the STEMulator social media platforms:

- Facebook: TheSTEMulator
- X: @STEMulator1
- Instagram: @the_stemulator
- LinkedIn: STEMulator
- YouTube: STEMulator
- TikTok: @stemulator

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
- gathers stakeholders around burning issues of national and global interest, across the public and private sectors, including matters of public policy
- includes a network of professional societies in SET and STEM education (STEM = science, technology, engineering and mathematics) - the NSTF pro*SET* membership sector.
- recognises, awards and profiles the outstanding contributions of individuals and groups to SET and innovation through the prestigious NSTF Awards
- runs and supports collaborative projects and youth outreach, including recognition of top performance in mathematics and science, role modelling, bursary and STEM career information
- runs and supports the STEMulator.org which attracts youth and educators to Explore>Discover>Learn the world of STEM including careers. (Established by NSTF pro*SET*)

For more information
www.nstf.org.za
E-mail: enquiries@nstf.org.za

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