WELCOME TO THE WORLD OF ROBOTICS THROUGH STEM EDUCATION

INDIA

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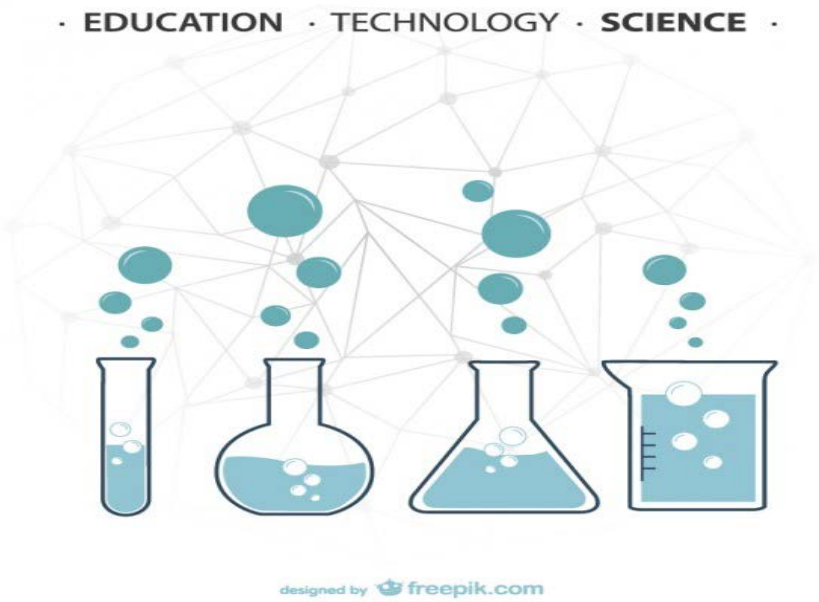
WHAT IS STEM?

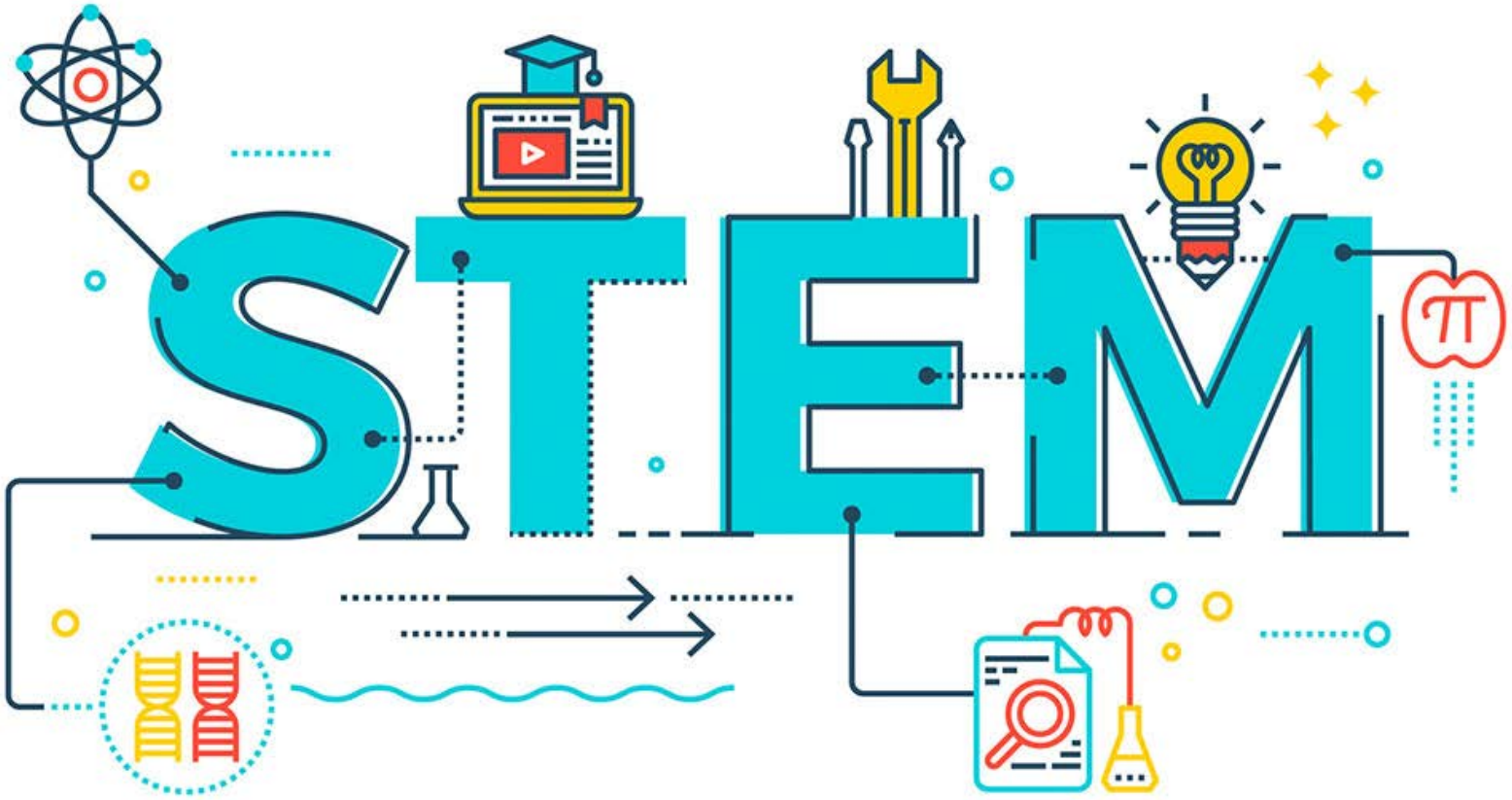
Let us first understand what is science , what is technology, what is engineering and mathematics?

Science is a combination of Physics, Chemistry and Biology. But we do not teach particularly science as a topic....this has a combination !!

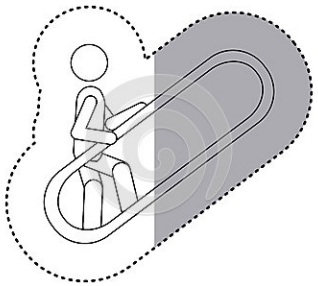
The same with technology, do we teach technology at school?...as an educator I believe that the technology is a combination of Scientific knowledge, technological aspects , engineering skills, and mathematical calculations !!



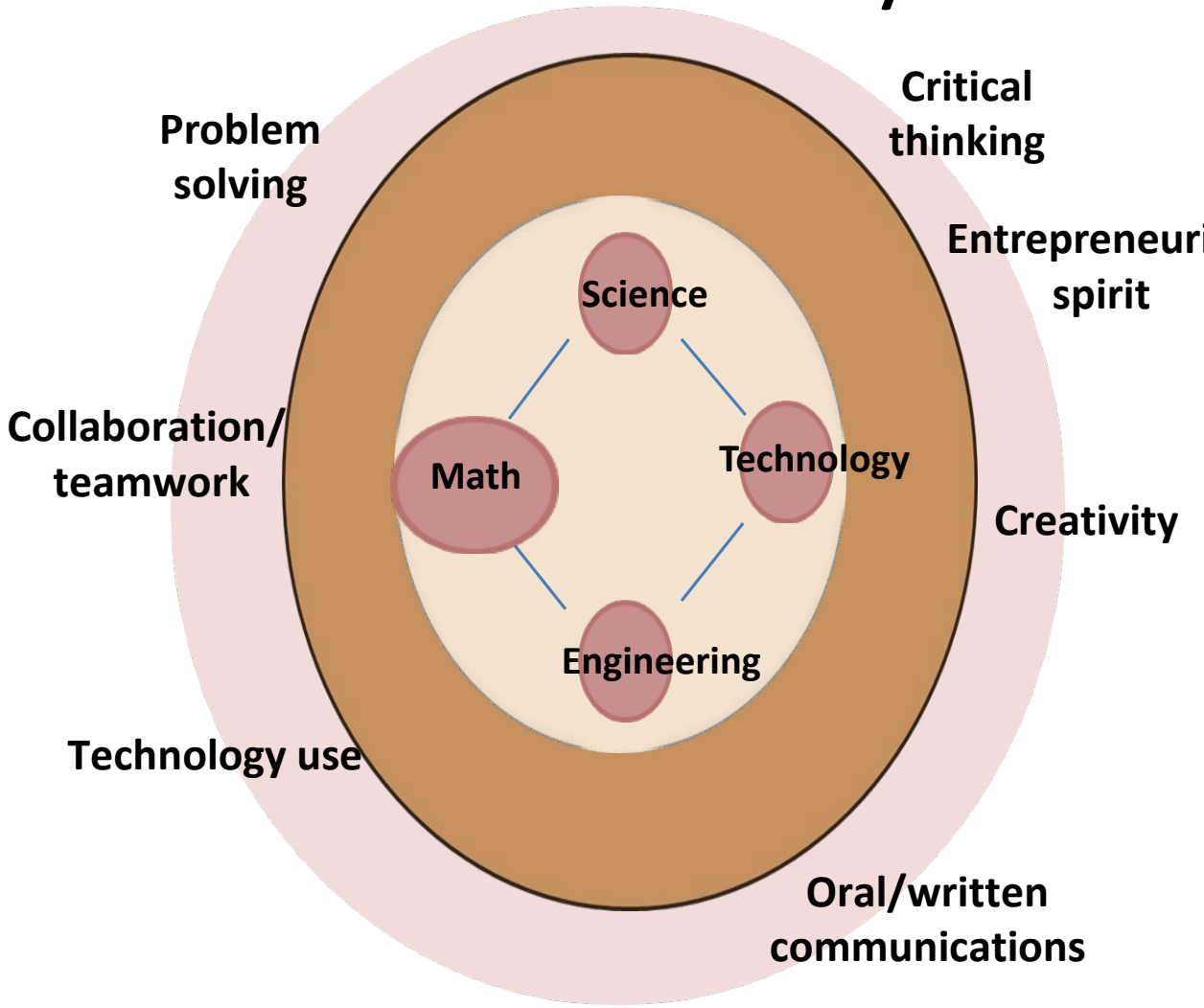
Where exactly do we use STEM?



FIRST LEGO LEAGUE INDIA



STEM Education to develop 21st century skills



STEM Education is an infusion of

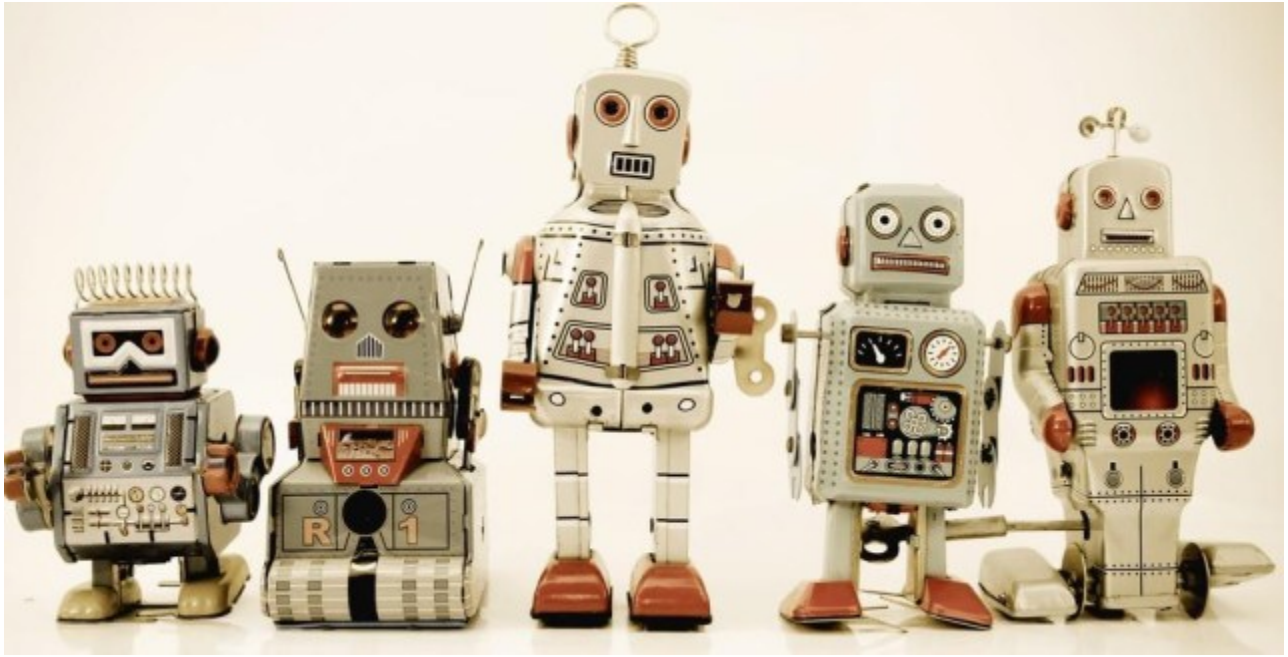
Science

Technology

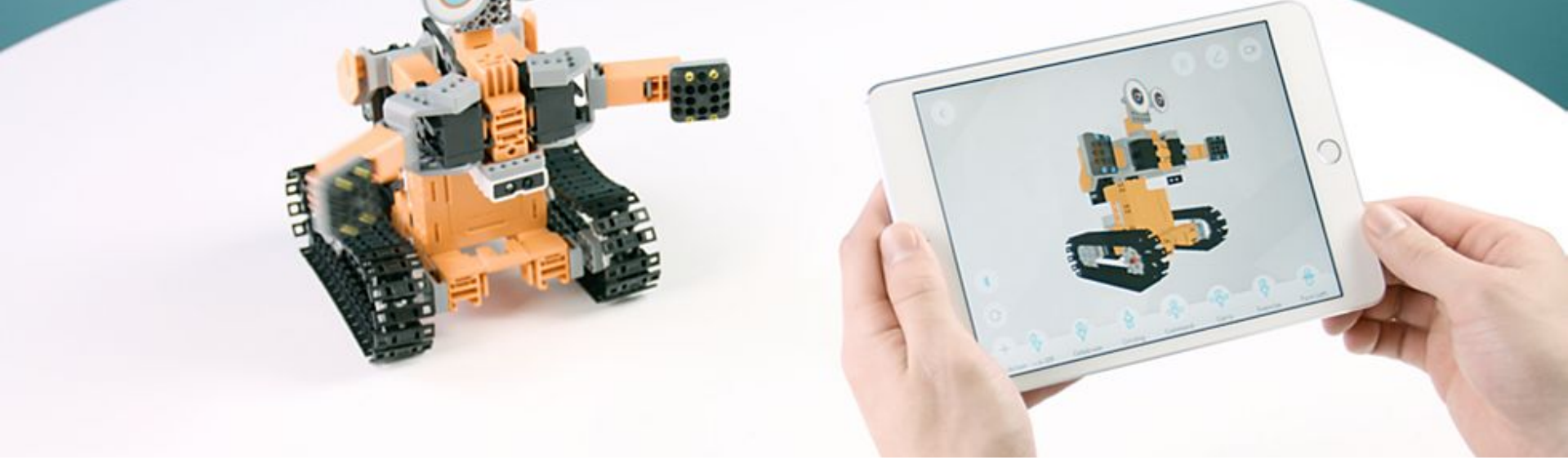
Engineering

Mathematics

“A strong science, technology, engineering, and mathematics (STEM) education is becoming increasingly recognized as a key driver of opportunity, and data show the need for STEM knowledge and skills will grow and continue into the future … Graduates who have practical and relevant STEM precepts embedded into their educational experiences will be in high demand in all job sectors.”

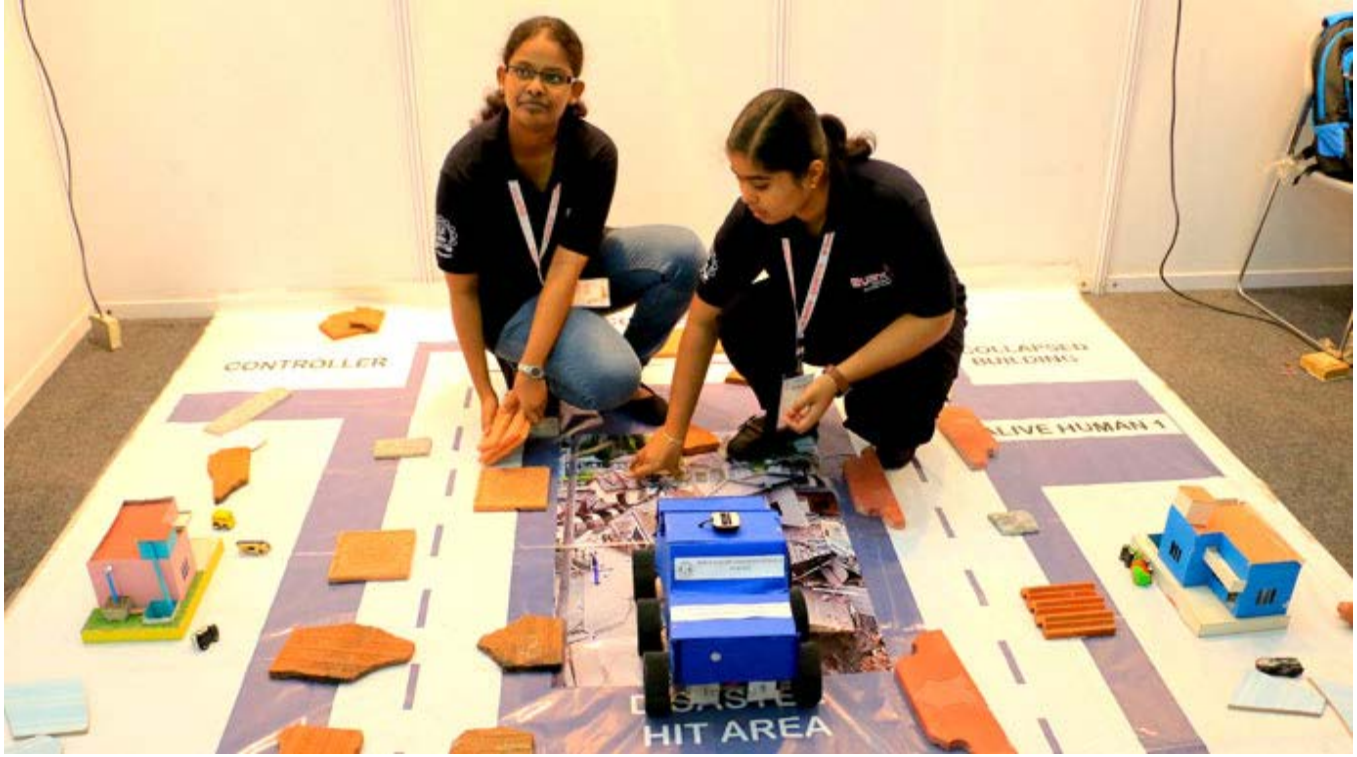


STEM is basically application oriented learning in the classroom.



Next Education™
Transforming Education

New products of the Indian classrooms - **Robots**



We in India through different companies associated with education and school are getting equipped to provide complete solution when it comes to STEM education to our students. Robotics is the next big wave in Indian education system and the only solution to develop our students holistically and be on par with every student in the world.

A successful STEM education provides students with Science, Math and Engineering/Technology in sequences that build upon each other and can be used with real-world applications.

Robotics is the mother of all subjects. It integrates Mechanical, Electrical, Electronics, Control Engineering, Computer Science, Technology, Math and Science.

Robotics is increasingly being considered as the fourth “R” of learning, “Reading, wRriting and aRithmatic” that modern-day students must understand to succeed in a highly competitive, technology-driven world.

Robotics integrates all STEM fields in way no other subject can cover.

Immerse yourself in the most forward-looking discipline of our time.

- ☐ Makes learning fun, engaging, and inspiring
- ☐ Provides highly practical hands-on experience
- ☐ Gives a head-start in preparing for high school and college
- ☐ Develops critical thinking skills and problem solving strategies
- ☐ Enables learner to develop and express creativity

- Develops the ability to work collaboratively in teams

- Helps our student develop an intuitive understanding of physical concepts in science and Math

- Helps to excel in math and science and choose a career in science and technology

- Prepares our student for the fast-paced competitive world

Now there is a challenging and competitive front on taking the STEM education forward in full swing towards reaching maximum numbers of students in India, let it be schools, colleges or universities.

We focus on these areas together not only because the skills and knowledge in each discipline are essential for student's success, but also because these fields are deeply intertwined in the real world and in how students learn most effectively.

Given the rapid pace of technological advances, the research, design, and building of new robots have begun to serve various practical purposes – domestically, commercially and militarily. Today, many robots do jobs that are hazardous to people such as defusing bombs, mines and exploring shipwrecks.

We spoke to a few people who are working with robots both academically and commercially in India and got to know their thoughts on the growing field of Robotics, the burgeoning opportunities that have opened up as well as the many challenges that they face in an Indian scenario.

Robotics opens up a plethora of opportunities for both entrepreneurs and students.

We believe industries across a range of sectors such as automotive, atomic energy, defence, space, metals, textiles and manufacturing use Robotic technologies very extensively.
“Robots are required everywhere to improve productivity. They are also being used in operation theatres and rehabilitation centres to augment the quality of life.

I N N O V A TI V E

ROBOTS

Developed countries like Japan and America have been using robots to clean rooms, entertain etc. It is an ever growing field and many avenues have opened up in recent past.

Therefore students who have the required skill sets will be favoured by such industries."

"The automation industry is a big consumer of Robotic technology. Using such technology, the quality of products and processes improve considerably....

As teachers, doing what we can now to blaze the trail for STEM education in the future will benefit our students and the world immeasurably.

What benefits our students ultimately benefits both the present they are experiencing and the future they will inherit.

It’s great when everybody wins!

THANK YOU