

21st Century STEM Lab

Makerspace and Tinkering Lab
to create new age leadership



12+

YEARS IN CHILD
ENGAGEMENT

50+

FRANCHISE
CENTRES

50+

NEWSPAPER
FEATURES

350+

SCHOOLS
IMPACTED

260,000+

MINDS ENRICHED

Why Modern Age Lab?

1

STEM education teaches students how to solve problems by using their critical thinking and logical reasoning skills.

2

STEM builds confidence in children by developing clarity in Science and Math concepts with Minds-on activities paired with Hands-on projects and experiments.

3

STEM enables children to think smartly by allowing them to solve day to day engineering problems.

4

STEM promotes design thinking, creativity, research experimentation, prototyping and project building which lead to new ideas and innovations.



National Education Policy 2020



Core Essentials

Curriculum in all subjects to be reduced to its core essentials

Critical Thinking

Focus on critical thinking, inquiry, discovery, discussion and analysis-based teaching and learning methods for holistic education

Interactive Classes

Interactive teaching with reduced dependency on textbook learning; Questions from students will be promoted

Experiential Learning

Fun, creative, collaborative, and exploratory activities in classroom for experiential learning and deeper student learning



Science is Fun

Science is Awesome



What it consists of?

ScienceUtsav aims at offering all our students a broad and balanced STEM curriculum that provides rewarding and stimulating activities to prepare them for the best social and cultural life.

1. Discovery Lab

Infrastructure for Curriculum based Physics, Chemistry, and Biology Experiments for research behavior.



2. MakerSpace

Design thinking & Engineering Lab where children Design and Build Projects.



3. Technology & Tinkering Lab

Coding, Robotics, Internet of Things and Automation Lab for community problem solving.

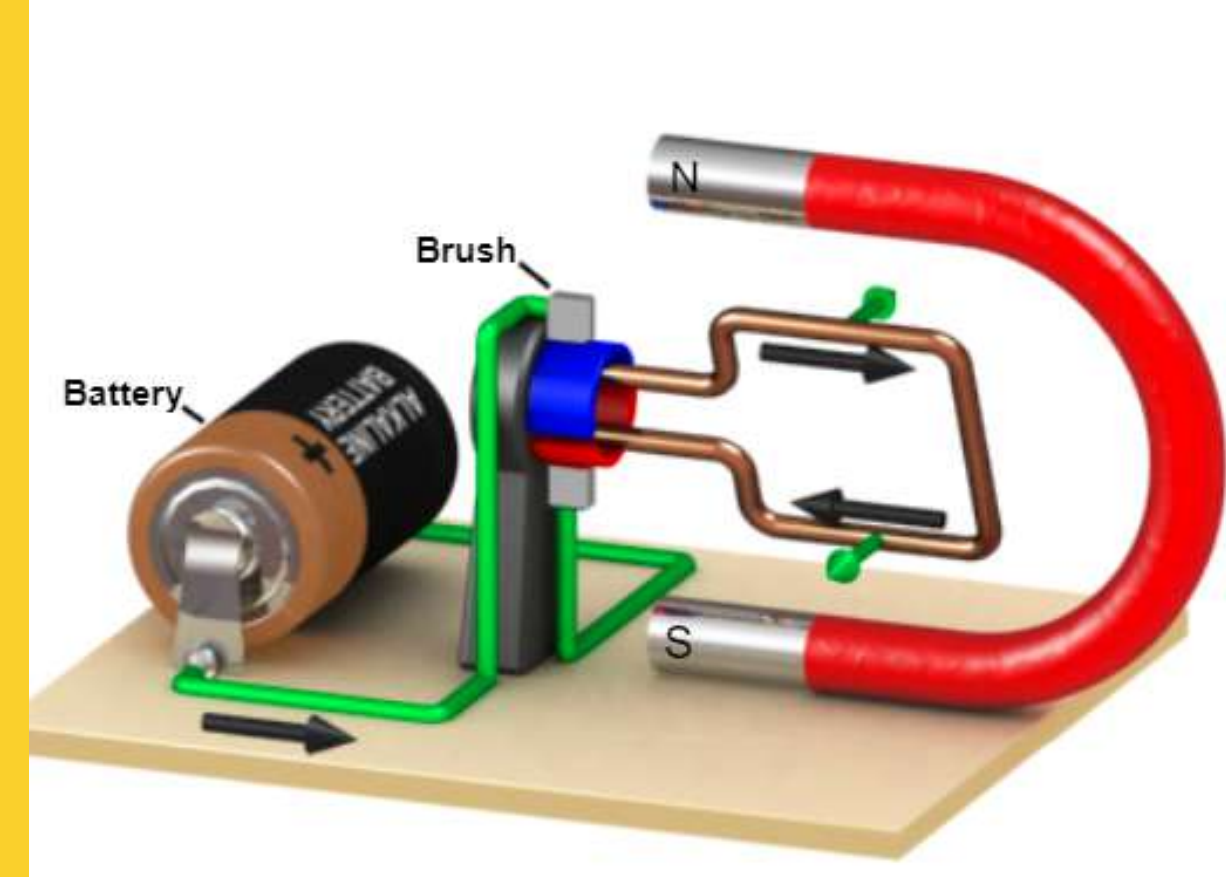




Discovery Lab

Modern Science Lab





Research Based Experiments

Role-plays and Anecdotes

Concept maps & Worksheets

Science Kts are provided to group of students to design appliances to Compliment theory given in the text book

Story telling based pedagogy to enact scientific principles in which students act to learn the complex concepts

Simulation, Quizzes & Assignments
Research ideas and mind maps

Learning Outcome

Enhances students Scientific temper & Research attitude

Learning Outcome

Concept clarity and enhancement of creative thinking

Learning Outcome

Memory Mapping and retention of the concept

Discovery Lab

Modern Science Lab



Maker Scientist - Physics lab to know how world around us works with help of fun Hands-on Activities

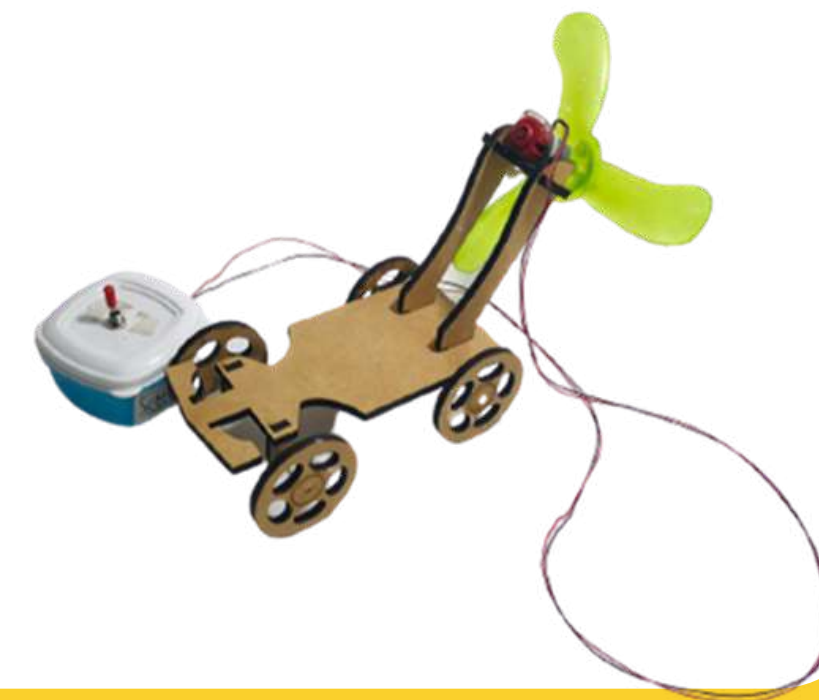


Material Scientist - Chemistry Lab to build cognition with research based experimentation



Nature Scientist - Biology and Earth Science Lab to understand nature first hand

Science – Technology – Engineering – Maths



MakerSpace

Curriculum Based STEM Take Home Kits



MakerSpace

Curriculum Based STEM Take Home Kits



Curriculum connected project building to enhance design thinking



Introduction to Tools and Equipment to aid skill development



Knowledge transfer to develop community problem solving

Science - Technology - Engineering -Maths



“Do it yourself” projects and science toys.

Every student is involved in building working models, take-home projects, etc

Learning Outcome

Helps the students relate to the lessons being taught in class

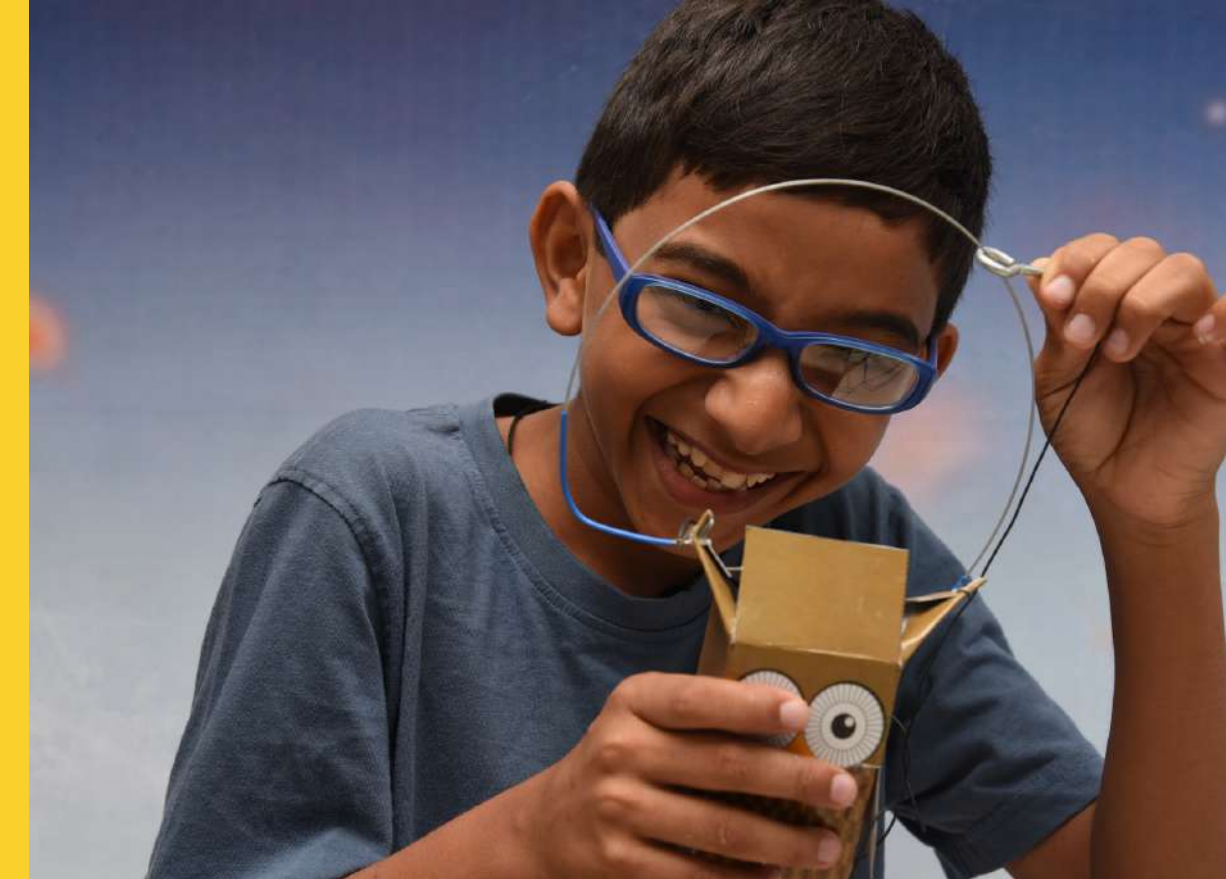


Skill Development

Participants use the customized teaching aids to apply their learning in real life scenarios

Learning Outcome

Motor skills development
Engineering approach
Creative applications

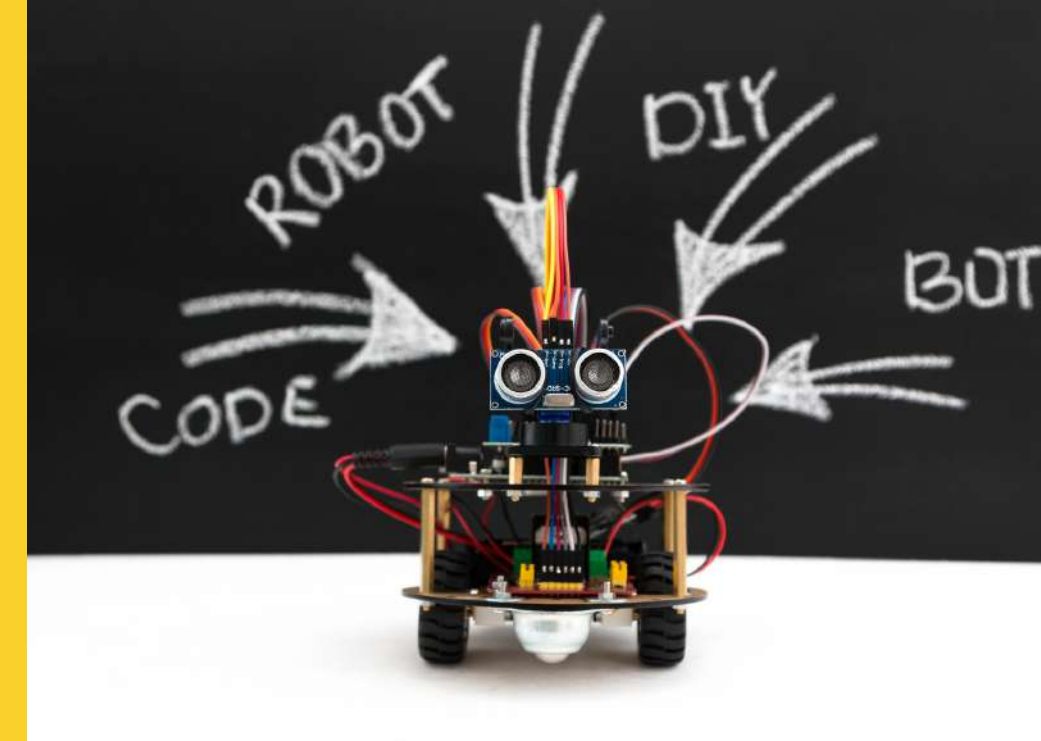
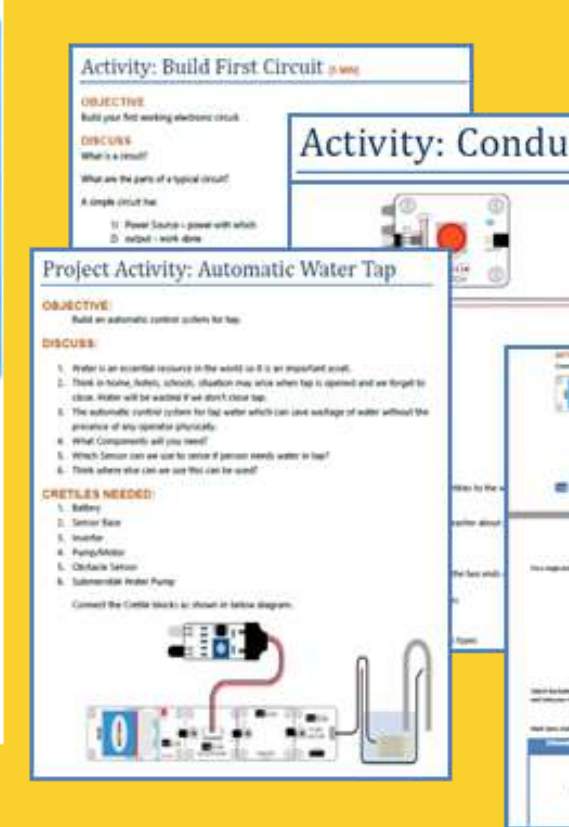
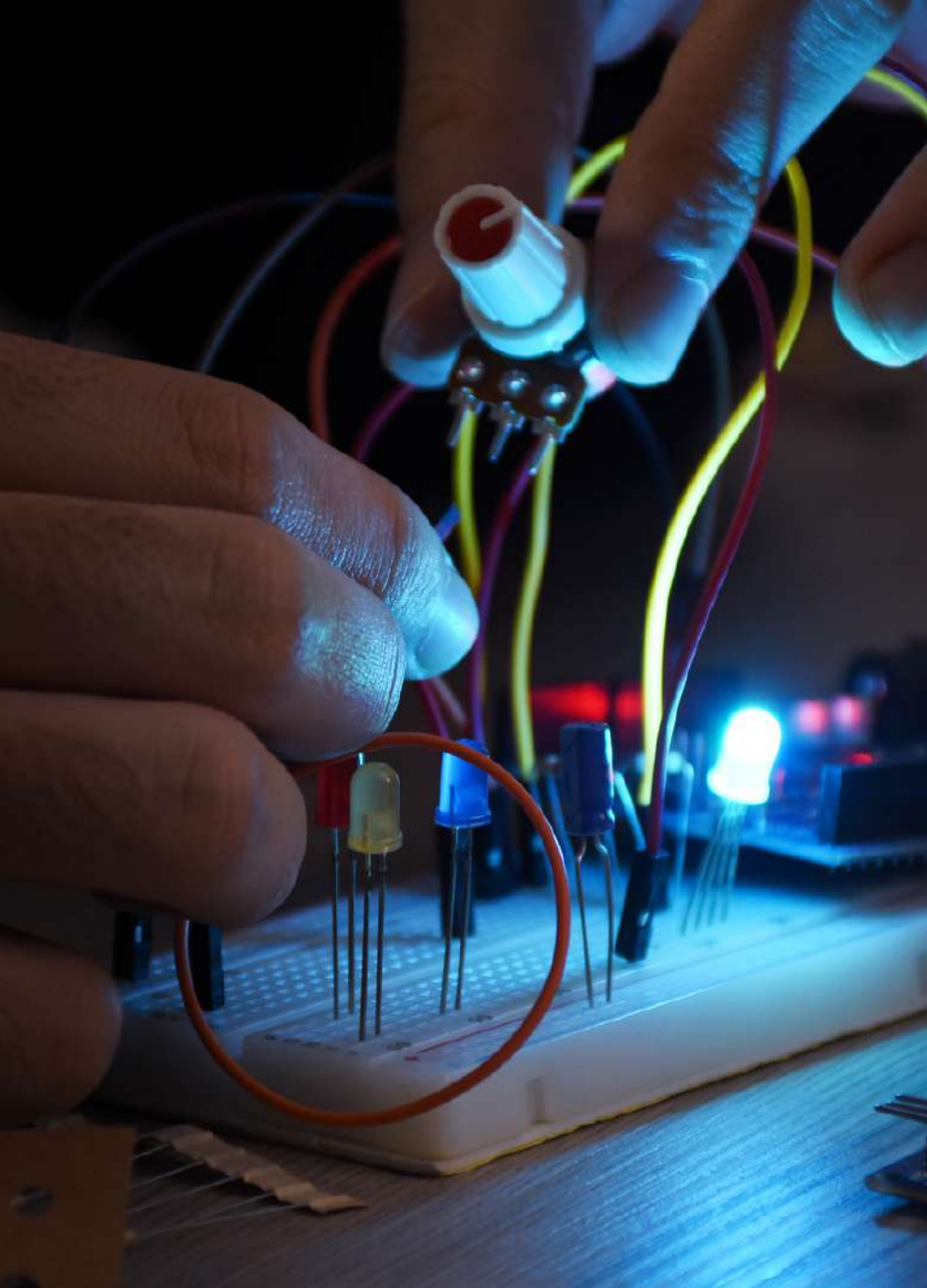


Creative platform and Prototyping approach

Helps children empathize with the community problems and gives them the confidence to solve them

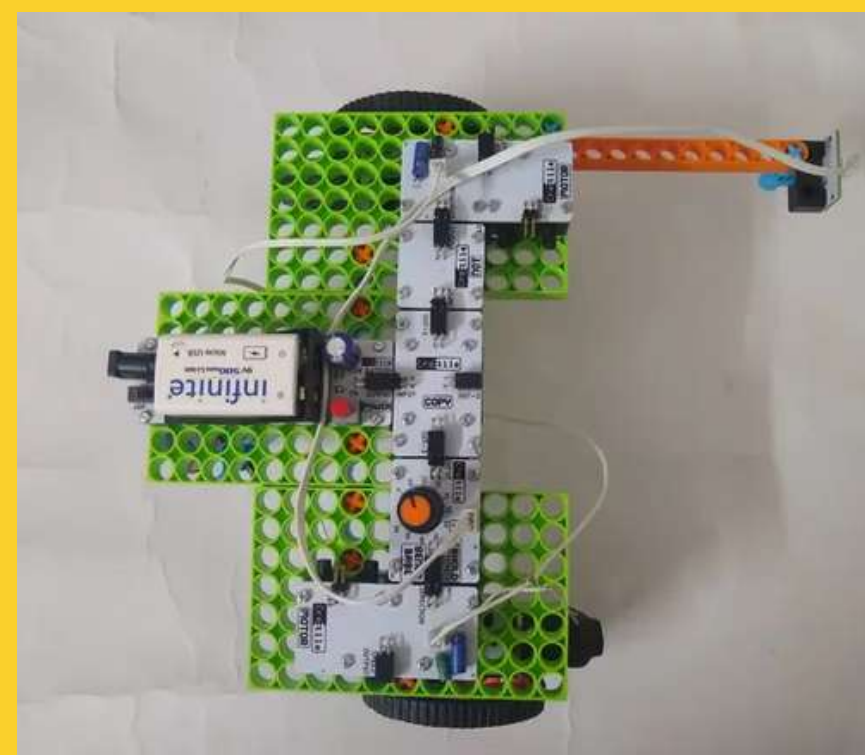
Learning Outcome

Cognitive Ability
Critical Thinking



Technology Lab

Robotics and Automation Lab
Coding and Computer Lab



Technology Lab

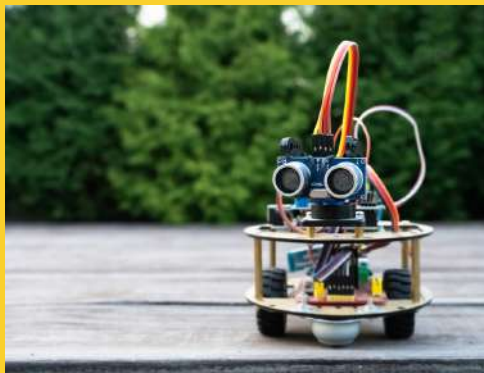
Robotics and Automation Lab



Programmable Electronic Kit with Electron Blocks, Output devices, Sensors and more

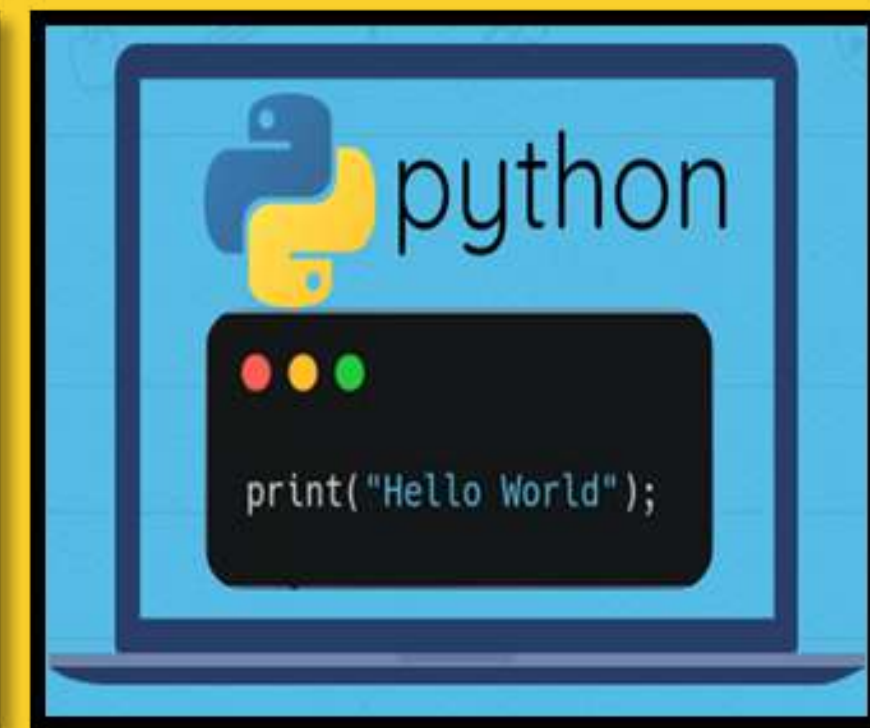
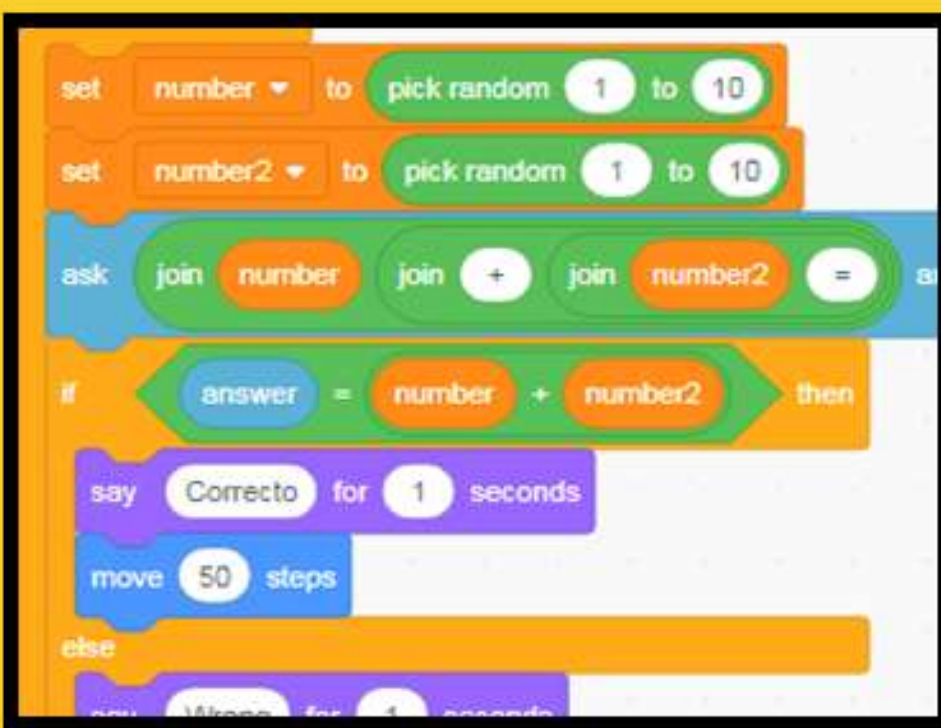


Kit with construction materials and tools required to build Technology driven projects



Knowledge transfer to develop interest in futuristic technologies

Science - Technology - Engineering -Maths



Coding and Computer Lab

Block coding

(Grade3 – Grade5)

App Building

(Grade6 – Grade7)

Text based coding

(Grade8 – Grade9)

Concepts taught

Basics of programming
Animation & Games
Sequences and logic

Concepts taught

UI/UX
Design concepts
App building hacks

Concepts taught

Operators and Operands
Complex logic
Conditions and loops

Learning Outcome

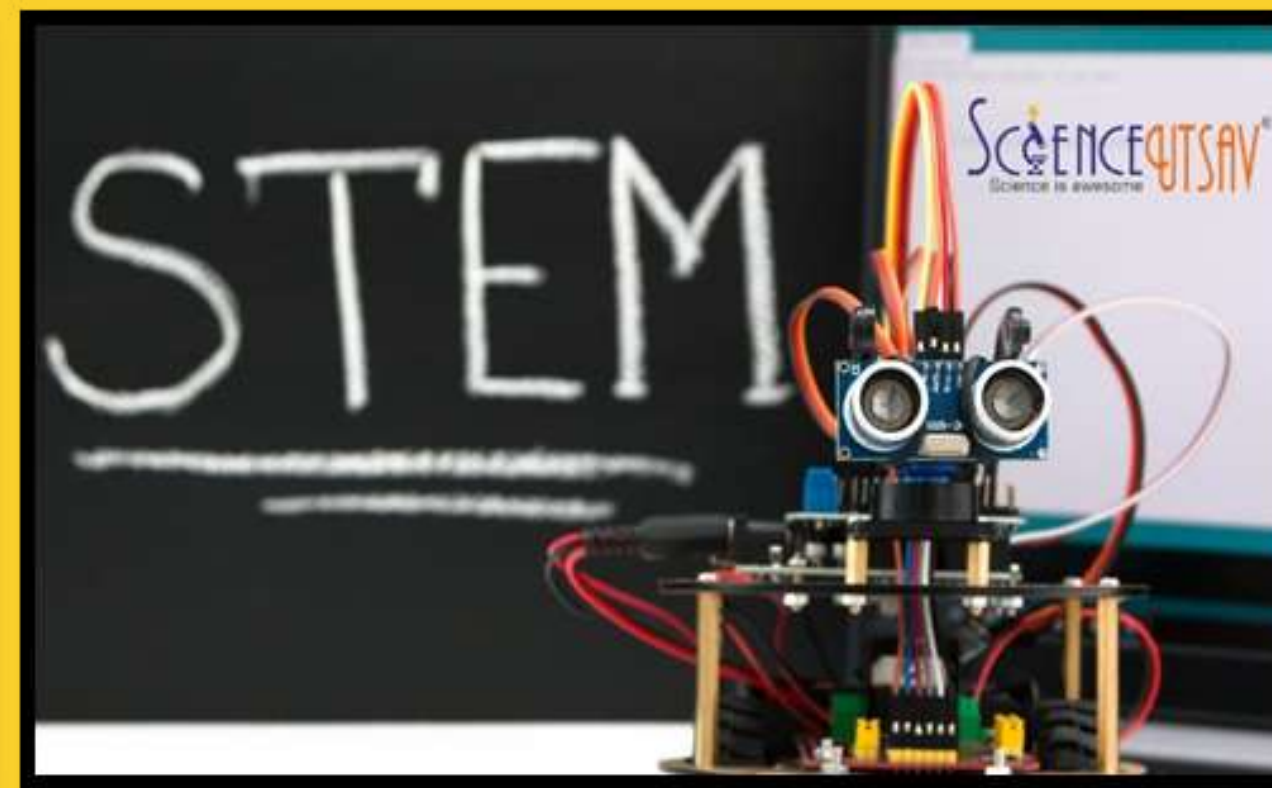
Creative thinking
Game logic
Problem solving

Learning Outcome

Solving errors in code
App design
Databases

Learning Outcome

Algorithms
File handling
Modules & Libraries



Robotics and Automation Lab

Electronic blocks
(Grade3 – Grade5)

Arduino
(Grade6 – Grade7)

Home automation
(Grade8 – Grade9)



Concepts taught

Concepts taught

Concepts taught

Basics of electronics
Sensors & Timers
Automation & Robotics

Block coding & Programming
Arduino UNO Board
Application of Robotics

Wireless communication
Neo world applications
Internet of Things

Learning Outcome

Working of robots
Sensor applications

Learning Outcome

Interface between Hardware &
software

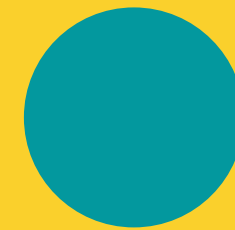
Learning Outcome

Applications of Automation
Interface IOT with Robotics

Knowledge Transfer through LMS



INDIA's first
STEM platform
with Learning
Management
System.

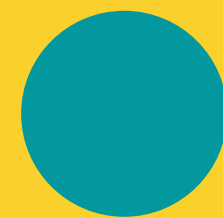


Click to open video - Coding
https://youtu.be/z9IIDSEu_VU

.....

Click to open video - Robotics
<https://youtu.be/cohhXckiaSo>

.....



Click to open video - MakerSpace
<https://youtu.be/r76fJ3Hg7zM>

.....

Click to open video - Training
<https://youtu.be/XLe6e-Z97VA>





■ 'सायन्स शो'ला विद्यार्थ्यांचा भरपूर प्रतिसाद

[illegible]

Metro

not only raising a various environmental problems, but also solution.

For five days, students in on interaction that will tackle the problem of water to waste it.

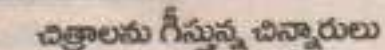
also be given tips on things they can do in everyday life to reduce their reference to the environment.

from Blessing House, an orphanage in Gambia, West Africa, to the 13th largest city in the United States, where they found a home. The 13th largest city in the United States is San Francisco, Calif. The orphanage and the children who lived there had a rough life. The children had to work hard to survive. The children who lived there had to work hard to survive. The children who lived there had to work hard to survive.



paradigmatic behavior of a
crisis. It's a way for Indians
and people of other cultures like
they see racism, oppression, and
other things. People know a war
there, because you can see
the importance of the
findings. Indians

Metro



పింగళూరు, జూన్ 18 (మధ్యాహ్నం) పర్యవరం పరిరక్షణ గురించి విద్యార్థుల్లో జాగృతి కల్పించేందుకు వేర్వేరు సంస్థలు సుయమక్రమంగా చేపట్టిన సైన్స్ దత్తవం ఆదివారం మొగి సిండ్రి ఇందులో భాగంగా మొక్కలు నాటడం వక్తవ్య సాక్షి నిరసించారు. చివరి కోసా విద్యార్థులకు క్షమించా



dna OF **bangalore**

ಬೆಂಗಳೂರು: 'ಸ್ವಲ್ಪ ಉತ್ಸಾಹ' ತಂಡ ಮಕ್ಕಳ ದಿಗಾಂತರಣೆ ಪ್ರಯತ್ನ ಚಿತ್ರ ಕಲಾ ಸ್ಪರ್ಧೆ ಮತ್ತು ಉಚಿತ ಮಿಷನ್ ಪ್ರದರ್ಶನವನ್ನು ಭಾನುವಾರ ಬಹು ಸಾಂದ್ರತೆಯ ಕ್ಷಣದಾದ ಸಾಂಕೇತಿಕ ಉದ್ಘಾಟಿಸಿತ್ತು.

ಈತನು ಸ್ವಲ್ಪದಿನಕ್ಕೂ 'ಭೂಮಿ, ಪ್ರಕೃತಿ ಮತ್ತು ಮಾನವ' ಹಾಗೂ 'ಭಾರತದ ಹಳೆಯ ಹಿಂದು ದೇವಾಲಯ' ಎಂಬ 2 ವಿಭಾಗದಲ್ಲಿ ವಿಚಾರಣೆ ನಡೆಯಿತು. ಕುಡಿಯುವ ನೀರಿನ ಬಗ್ಗೆ 200ಕ್ಕೂ ಹೆಚ್ಚಿನ ಮಾತುಗಳಿಗೂ ಸ್ಥಳೀಯ, ರಾಜ್ಯದ, ರಾಷ್ಟ್ರೀಯ ಮಟ್ಟದಲ್ಲಿ ವಿಚಾರಣೆ ನಡೆಯಿತು. ಮಾತನಾಡಿದ ಕುಟುಂಬದವರ ವಿಚಾರಣೆ ವಿಚಾರಣೆ ಪ್ರದರ್ಶನದಲ್ಲಿ ನಡೆಯಿತು. ಇವುಗಳ ಮೂಲಕವೂ ಕುಟುಂಬದವರ 2 ವಿಭಾಗದಲ್ಲಿ ಒಟ್ಟು 10 ವಿಚಾರಣೆಗಳಿಗೆ ಭಾಗವಹಿಸಿದರು. ಈ ಪ್ರಕ್ರಿಯೆಯು ಮಾನವ ಹಕ್ಕುಗಳ ಸಂರಕ್ಷಣೆಗೆ ಸಹಾಯ ಮಾಡಿತು.

[illegible]

er alia to recycle stuff, segregate garbage and clean the environment



6 Everyday, a topic will be taken up and we will teach children about it practically

— **Shashank Karnam**,
who started Science Utsav

derstood simple methods of reusing waste materials. An old shirt would become a bag once it was old. But today, we don't do that. We prefer to throw them away. To bring this essence back, SI is organizing

to cleaning the environment, kids will get to learn much through fun activities.

"When I ask a kid what an incandescent bulb contains, there is a blank stare. So we plan to teach the children

manner is another. Everyday, a topic will be taken up and we will teach children about it practically," Shashank said.

Nainratha Rajashekhar, a SU volunteer said: "When we say 10 decibel of sound, children cannot understand it. Instead, when we show them practically, they know that this sound is loud or not. So, we will teach them why honking without a reason is bad. We will also teach them civic sense and cleaner living practically."

can separate them and make use of those items which can be re-used," Namratha said.

"Children learn better when they are shown practically. When they put their hands into the projects, it is exciting for them. We want to use this to encourage them. We also have competitions for the kids on making models out of trash," Namrath added.

Green Camp is all set to begin from May 23 at jayanagar near Srusti Hospital near

www.scienceutsav.com

Thank you



Science Out Sav[®]
Science is awesome

