

# 21st Century STEM Lab

A Maker Space for Future-Ready Minds.









Hands-On Science | STEAM | Design & Skill | Design & Skil

#### ITS MY STEM LAB WHERE I AM ..



# SOICAN INNOVATE, EXPLORE & SOLVE REAL WORLD PROBLEMS



### 21ST CENTURY SKILL LAB

Building future-ready minds with the maker mindset.



**DESIGN LAB** 

Hub for Project Building Skills



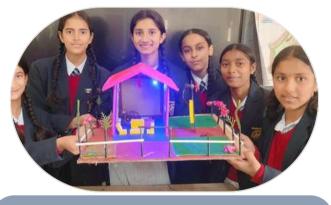
**ELECTRONICS LAB** 

Essential electronics skills for beginners



**ROBOTIC LAB** 

Create simple robots with coding skills



#### **IOT & AUTOMATION LAB**

Learn automation with sensors and controllers



#### AI & CODE CLUB

Programming skills tailored to every age

## **MAKER LAB**

- Concepts are aligned with the School curriculum.
- Transforms textbook concepts into Tangible experiences.
- © Experience Kits, Designed and Manufactured Kits In-house.
- 8 STEM project-building kits per grade, annually, for Grades 1 to 10.
- Training powered by a Learning Management System.

## 80+ CONCEPT AND MORE THAN 250 PROJECTS TO BUILD



#### **DISCOVERY LAB**

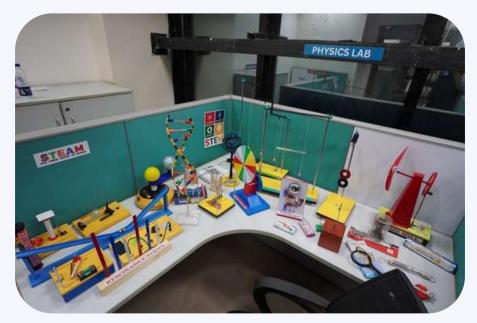
- Inhouse designed Portable, Scalable and fully equipped
   Mobile science Station
- Focuses on Research based hands-on experiments for every grade based chemistry, Phsyics, Biology and Astronomy
- Encourages curiosity, questioning & investigation
- Aligned with curriculum for progressive exploration

Customized Mobile Science Station

Teaching Aids | Equipment | Instruments
Consummables | Learning Materials



### **DISCOVERY LAB**



Teaching-Aids to Make Learning Fun

Art and Skill
Lab for
Hands-On
Experience



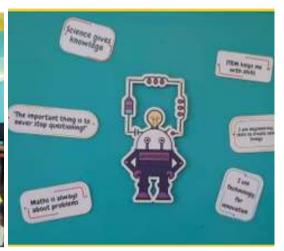


Grade-wise
Activities
for better
conceptual
understanding

## 21ST CENTRURY SKILL LAB









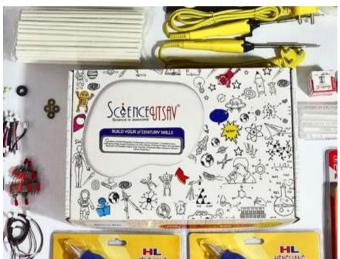


# SKILLAND DESIGN LAB



THINKING TO TINKERING

- Turns mechanical, electronic, and fabrication skills into real-world creations.
- Progressive kits from basic tools to advanced prototyping (Grades 6– 12).
- Problem discovery and disign thinking to create innovation for future careers.





Project Building tools

Materials to innovate

Instruments Creative
Skills

Mechanical Tools



# IOT AND AUTOMATION LAB

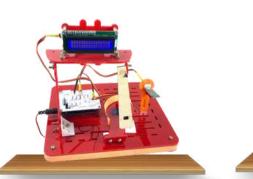
- Turns coding, electronics, and automation into real-world applications.
- Progressive kits from basics to advanced automation (Grades 6– 12).
- Projects with sensors, actuators, microcontrollers, and coding.
- Fosters innovation, problemsolving, and a 21st-century maker mindset.













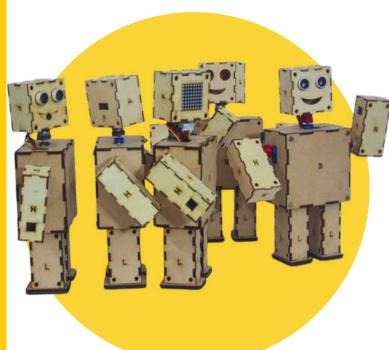




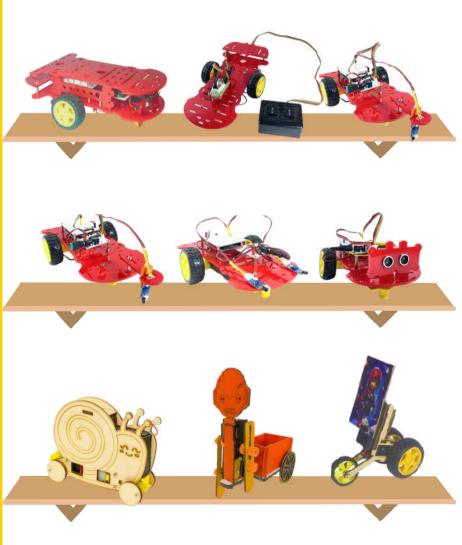
# IOT AND AUTOMATION LAB



## ROBOTICS LAB



- Turns robotics concepts into real-world bots.
- Projects with sensors, motors, controllers, and coding.
- Future-ready skills for Industry 4.0 and beyond.
- Intoduction to Mechatronix, Mechanism, Servos and Motors

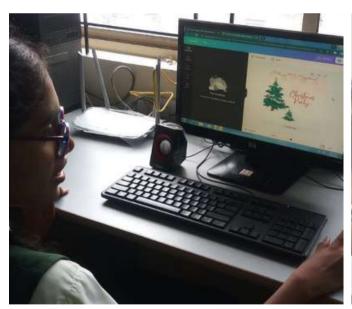




# AI AND CODE LAB



- Turns coding and AI concepts into real-world applications.
- Progressive learning from block coding to advanced languages (Python, Java, C++).
- Projects using Scratch, Code.org, PictoBlox, and App Inventor.
- Builds logic, creativity, and future-ready problemsolving skills.







## >>> It's not just a kit... It's a maker lab! <<

a complete learning ecosystem



**5 E Methodology** 

**Comic Strips** 

**Quiz & Assignment** 



**Role Plays** 

Anecdotes

**KLM Chart** 

Think a Ton

**Futuristic Videos** 

# Learning Management System

#### **Workbooks**



#### **STEM Kit**



#### **5 E Pedagogy**





**Concept Map** 





**Explorer Project** 



**Discoverer Project** 

Engage Explore Explore Elaborate

#### LAB INFRA

- Vibrant Flooring & Wall Painting Inspiring colors and themes to spark creativity.
- Thematic Lab Stickers & Posters Visual guides, STEM concepts, and motivational quotes.
- Flexible Seating Arrangements Collaborative tables, ergonomic chairs, and maker-friendly layouts.
- Racks & Organized Storage Dedicated shelves for tools, kits, and student projects.
- Fully Equipped Digital Lab Computers, smart board, and highspeed internet for research and coding.
- Maker Workbenches & Tool Stations For electronics, robotics, and mechanical assembly.
- Safety & Utility Setup Fire extinguisher, first-aid kit, and proper lighting/ventilation.



**SEATING TABLES** 



SEATING TABLES

#### DIGITAL INFRASTRCUTURE



**SMART BOARD** 



**COMPUTERS** 



**UPS** 





#### Teaching Aids | Table Manuals | Teacher Training





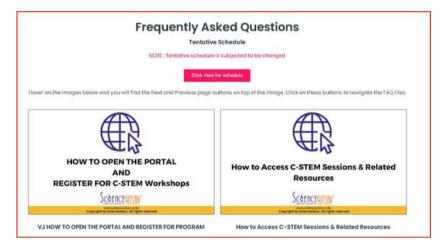


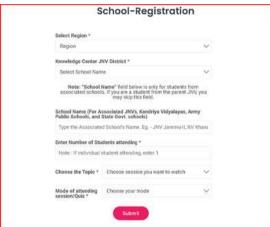




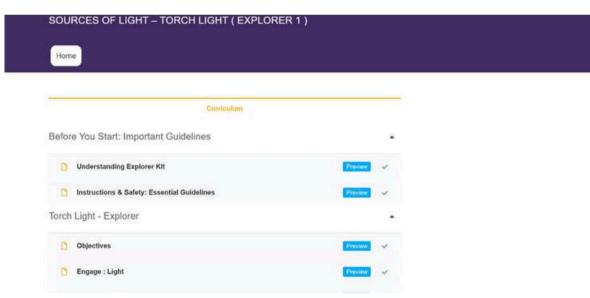
## TRAINING AND DELIVERY

 a. Learning Platform will be provided to every school where all the required content, joining links for sessions, study material, assessments, etc.,





b. Content: Content related to the Kit is curated based on the 5E Principle



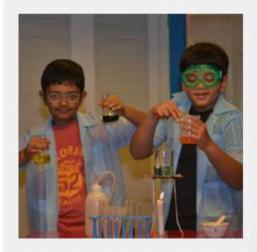








#### Teaching Aids | Table Manuals | Teacher Training



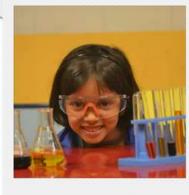


















#### Teacher Training | Explore LMS | Build projects





# Future Makers in Action







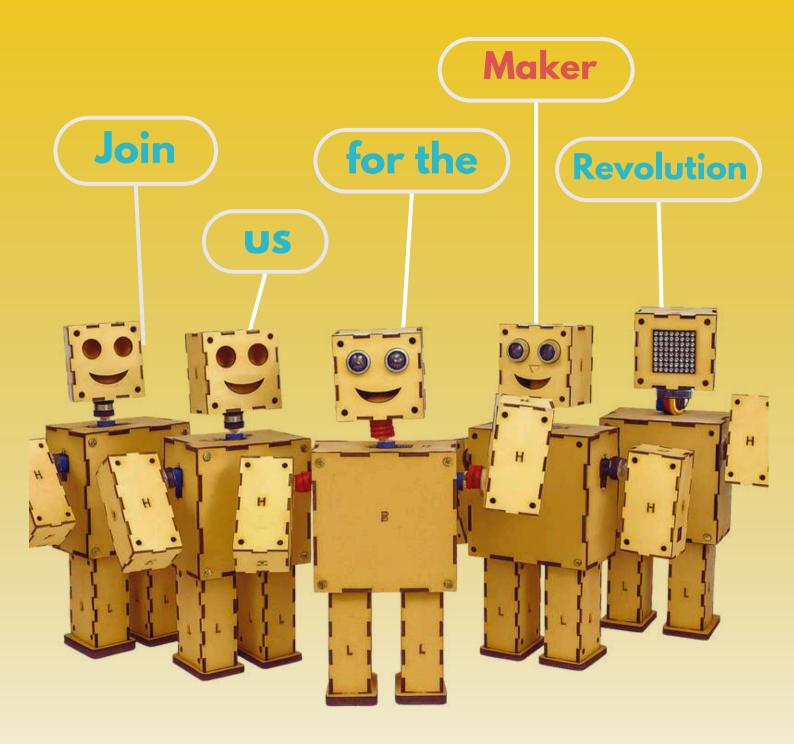






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# Let's transform your classrooms into innovation hubs





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