# 21ST CENTURY LEARNING

LEP

Digital Library

Sports

ATL Lab

Play Material & Furniture

PM SHRI

SCHOOL

ICT Lab

Green School

Physics Lab

ITI Equipment

Chemistry Lab

Biology Lab

# Pradhan Mantri Schools for Rising India

# About us

***We Robotech Pvt. Ltd., Provides Hands-on Teaching practices from Pre-primary to Graduation Level Based on Integrated STEAM Curriculum with 4Cs Teaching Methodology to Imbibe 21st Century Skills in Learners.***

We are on a mission to change the conventions of education in India through technology-driven solutions and approaches. We believe that, with these solutions, no student in future will succumb to the ordinary way of life due to lack of advanced educational resources. Instead, the students will be empowered to radically change society through their innovative ideas and skill sets.

We have designed different technology based educational programs for all age group of learners. We have programs from Playschool to Engineering / Management Colleges to reinforce student's learning(s) through hands-on methodology.

***"To Build 21st Century Human Capital by remodelling the realms of employable workforce & entrepreneurship by using "Hands-on Technology & Collaborative Learning"***

# CURRICULUM, PEDAGOGY AND ASSESSMENT

## Teaching Learning Material

- **Curriculum as per National Curriculum Framework based on NEP 2020.**
- **Pedagogical upgrades to ensure important skills such as 21st-century skills and STEAM (Science, Technology, Engineering, Arts and Mathematics).**


**NEP States –** The formulation of a new and comprehensive National Curricular Framework for School Education, NCFSE 2020-21, will be undertaken by the NCERT - based on the principles of this National Education Policy 2020, frontline curriculum needs, and after discussions with all stakeholders including State Governments, Ministries, relevant Departments of the Central Government, and other expert bodies, and will be made available in all regional languages.

- **Art Integrated Learning - Indigenous Toys, Puzzels, Puppets, Story books, Activity Books, etc (JAADUI PITARA by NCERT).**
- **Teaching Learning Material in Vernacular Languages.**
- **TLM for imbibing values, ethos, and knowledge of India.**

Teacher Resource Material(TRM) We have prepared the No-cost, Low-Cost, Do it yourself type TLM for school teachers - JAADUI PITARA by NCERT

# Holistic Development and Planned Curriculum


**STEP 1**
Where are we now as a school?

**STEP 2**
What do we need to do in the coming year?

**STEP 3**
How will we achieve waht we want to do? Who is responsible?

**STEP 4**
What is the timeline for implementation?

**STEP 5**
What will the impact look like?

**NEP States –** The culture of working to a short-term and long-term plan will be developed through such complexes/clusters. Schools will develop their plans (SDPs) with the involvement of their SMCs. These plans will then become the basis for the creation of School Complex/Cluster Development Plans.

- **Visualise a student's learning from a holistic perspective.**
- **Incorporation of all the learning domains into the teaching-learning process.**
- **Tools for teachers to cater for students' learning experience and provide them with such an environment.**
- **Our teachers can enable students to understand and retain information based on how they learn best.**

**PSYCHOMOTOR DOMAIN**

01 **PERCEPTION**
The ability to apply sensory information to motor activity.

02 **SET**
The readiness to act.

03 **GUIDED RESPONSE**
The ability to imitate a displayed behaviour or to utilise trial and error.

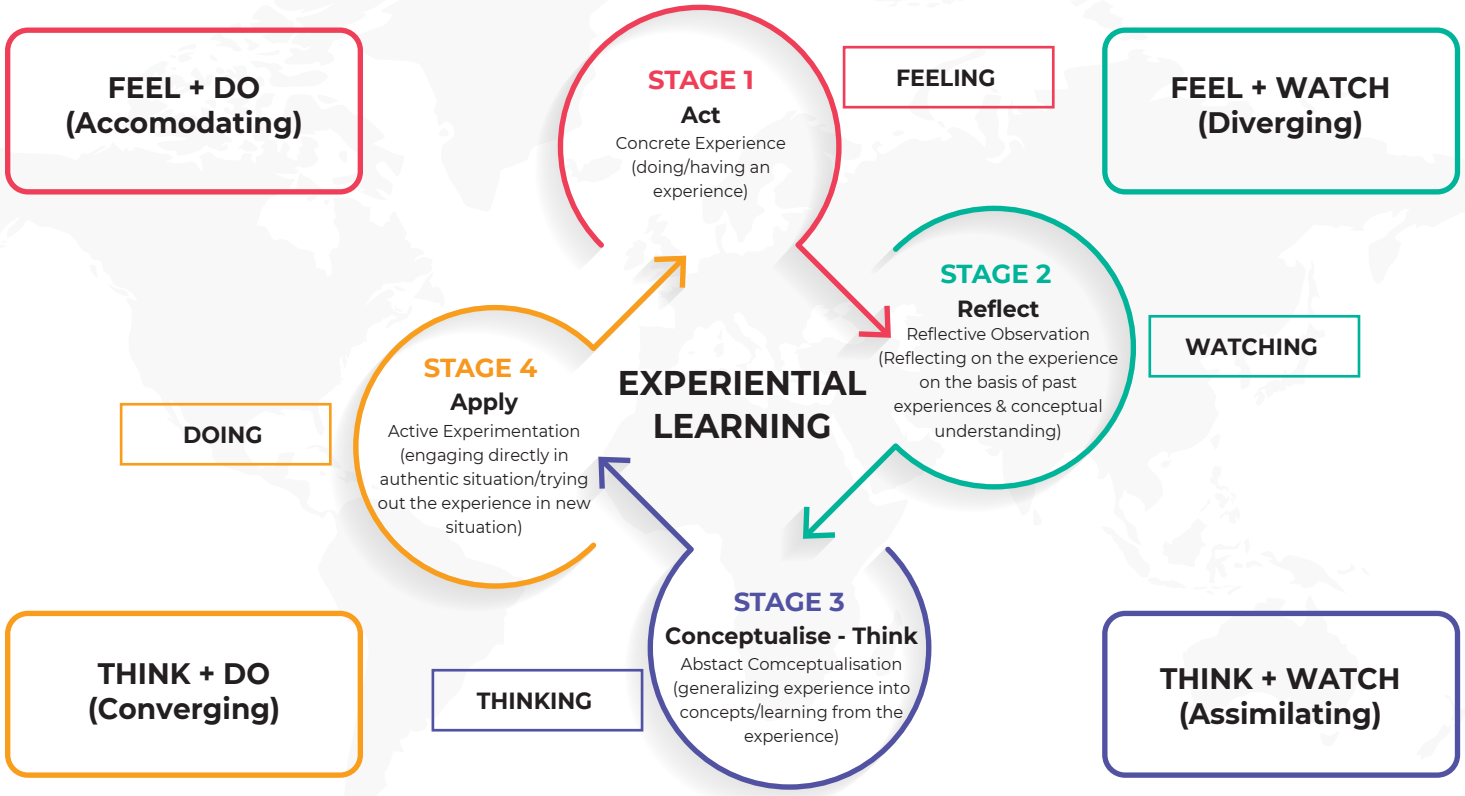
04 **MECHANISM**
The ability to convert learned responses into habitual actions with proficiency and confidence.

05 **COMPLEX RESPONSE**
The ability to skillfully perform complex patterns of actions.

06 **ADAPTATION**
The ability to modify learned skills to meet special events.

07 **ORIGINATION**
Creating new movement patterns for a specific situation.

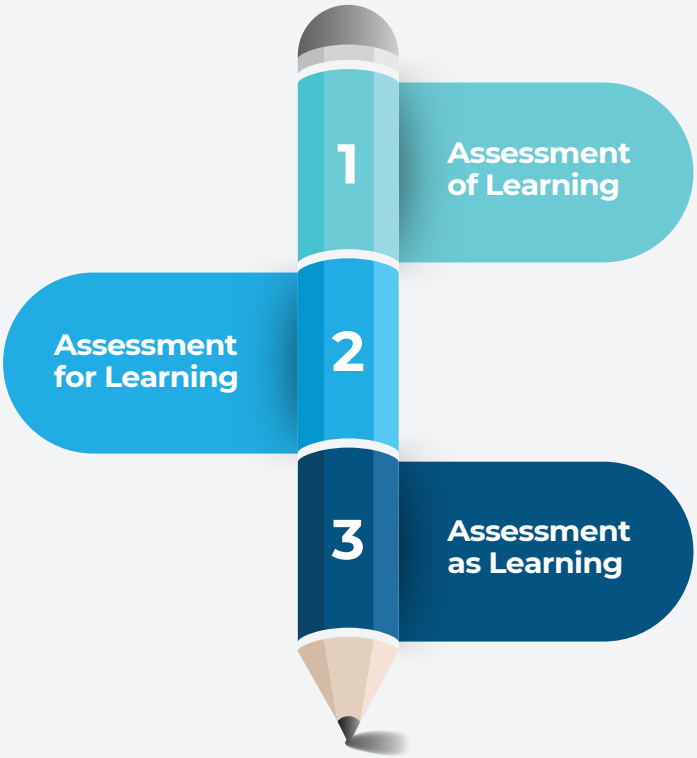
# Learning Enrichment Programmer (LEP) / Remedial Teaching




**Art-integrated Pedagogy** – Art integration is a cross-curricular pedagogical approach that utilises various aspects and forms of art and culture as the basis for learning concepts across subjects.

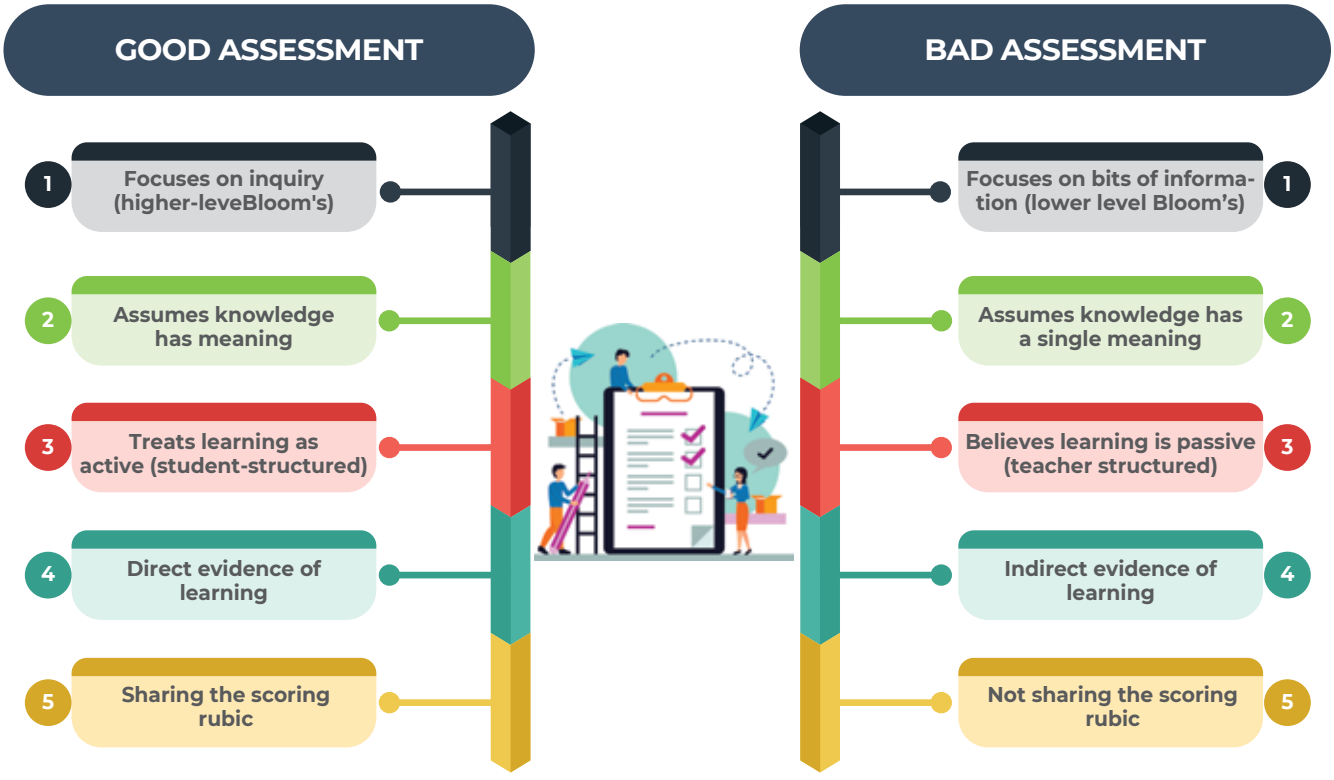

- **Sports-Integrated Pedagogy** (Sports integration can help in developing skills such as collaboration, self-initiative, self-direction, self-discipline, and teamwork.)
- **Toy/Game-Based Pedagogy** (Play/Game based pedagogy requires a child's active participation related to different aspects of development- cognitive, affective and psychomotor).
- **Storytelling based pedagogy** (Storytelling is an effective tool to Entertain, Engage and Educate students since they have the power to hook students and trigger their curiosity about a concept).
- **Academic enrichment in classrooms** (Group Research, Group Work, Project Work).
- **Topic Centered and Project based Circles** (include Science Circles, Math Circles, Music & Dance Performance Circles).

# Competency Based Assessment




THREE TYPES OF ASSESSMENTS

- **Assessment of learning** (The intent of the Assessment of learning is to benchmark students' learning against criteria based on identified curricular aims and objectives).
- **Assessment for learning** (Apart from providing valuable evidence about students' learning, assessment for learning assists students in assessing their own learning).
- **Assessment as learning** (When learners themselves become their own assessors, it is termed Assessment as learning).




Distinction between a Good and a Bad Assessment

- **Developing an Assessments framework** (In order to enable the current assessment system to move away from rote learning and towards meaningful learning, a robust assessment framework we have developed).

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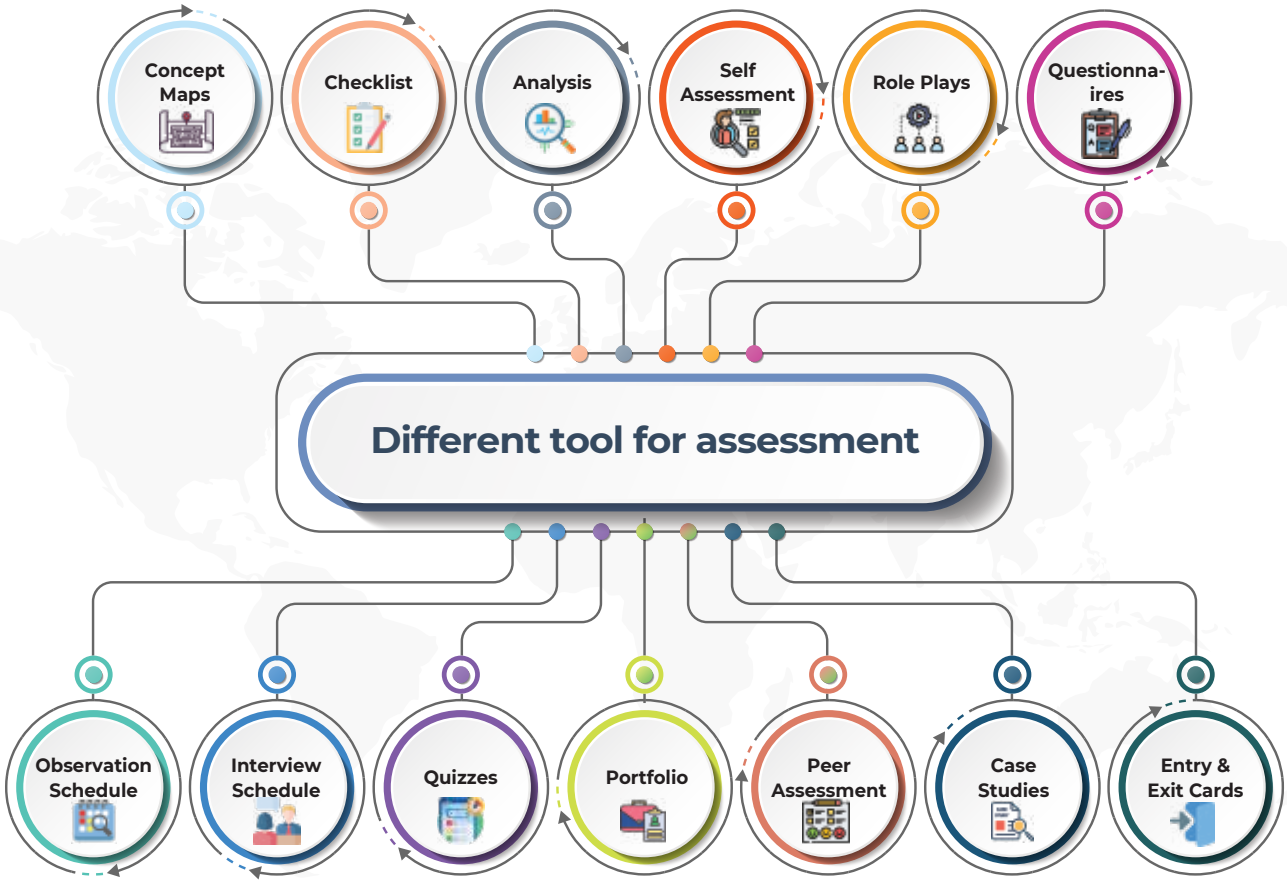
**Tools of Assessment** (There are several tools through which we can assess and achieve the desired competencies which must be aligned with the Learning Outcomes for a particular class).




## Preparation of Test Blueprint

| Content Areas | | Cognitive Levels (Bloom's Taxonomy) | | | | | Difficulty Levels | | | Item Format Types | | | Total Items | Testing Items |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Main Topic | Sub Topic | L1 | L2 | L3 | L4 | L5 | Easy | Medium | Difficult | SR | CR1 | CR2 | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Total Items | | | | | | | | | | | | | | |

**L1- Level 1** of Bloom's Taxanomy: Remembering (What is..?, Where is..?, Who Was..?)

**L2- Level 2** of Bloom's Taxanomy: Understanding (How would you classify..? How would you compare..?)

**L3- Level 3** of Bloom's Taxanomy: Applying (How would you use..? Solve_using what you have learned..?)

**L4- Level 4** of Bloom's Taxanomy: Analysing (Why do you think..? What motive is there..?)

**L5- Level 5** of Bloom's Taxanomy: Evaluating (What is your opinion..? Would it be better id..?)

**SR-** Selected Response (1- MCQ; 2- True/False; Match, etc)

**CR1 -** Constructed Response short Answer Type (two or less than two sentences)

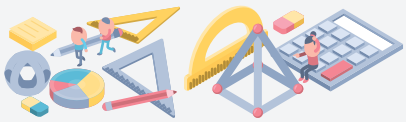
**CR2 -** Constructed Response Long Answer Type

**Table of the test blueprint**

# Rashtriya Aavishkar Abhiyaan

We Provide the latest and high-quality science, mathematics, language, social science, and tinkering laboratories space and supplies.

- **Math Circles**
  - o Activities involving coding will be introduced in Middle Stage.
  - o It involves artificial intelligence, machine learning, and data science.
  - o Variety of innovative methods.



- **Science Circles** It is an enrichment program where students develop their curiosity about the world and the scientific way of thought needed to understand the natural phenomena of the physical world.
  - o Learn physics with new technologies and hands-on approaches not only in class also at home.
  - o Turn smartphones/tablets into a pocket physics labs and conduct science experiments anytime and anywhere.
  - o Remain curious about the world we live in ask “How?”, “What if?” and “Why?” and know how to pursue the answers.
  - o Become a young scientist by understanding the connection between everyday life and physics.

- **Exposure Visit (Visits to places of historical and cultural significance, archaelogical sites).**
- **Science Kit**
- **Maths Kit**
- **Mentoring by Eminent Experts (National)**
- **Mentoring by Eminent Experts (Interational)**

***It’s not just about finding the answer, it’s also about developing the necessary reasoning skills to be able to justify the way in which the answer was found. It is about challenging yourself, being curious, asking the right questions, and thinking like a mathematician would!***

Rashtriya Avishkar Abhiyan

# Vocational Education for Secondary and Sr. Secondary Schools

The purpose of vocational education is to impart technical and vocation-specific knowledge and it includes skills related to handicrafts, mechanical skills, arts and music, languages, 21st-century and new-age skills such as artificial intelligence, machine learning, design thinking etc.

- **Tools and Equipments**

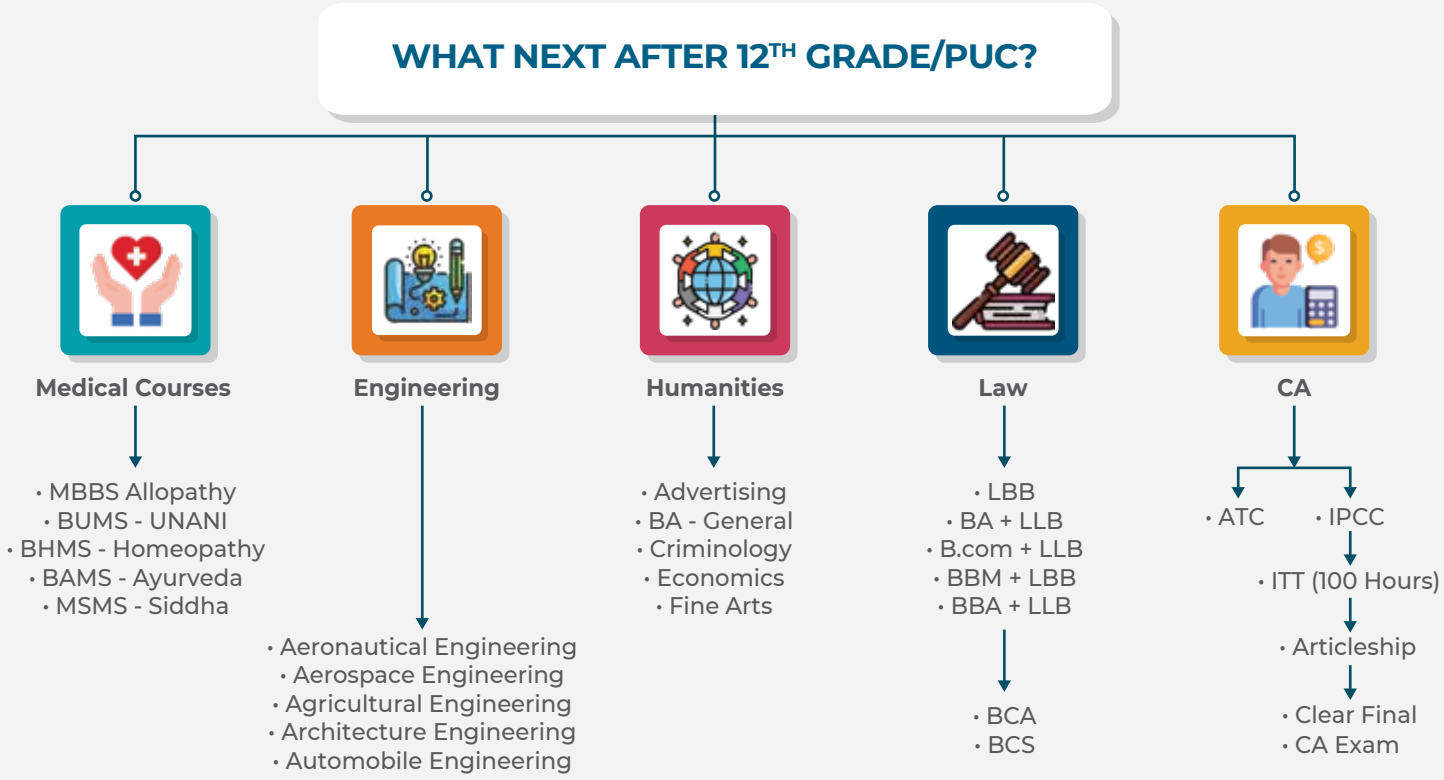

- **Equipment for art activities**
- **Fully equipped Library with digital equipment** (Designed futuristically and professionally managed to cater for the needs of all stakeholders; students, teachers and other staff members)
- **Collaboration with ITIs, polytechnics, local industry, etc**
- **Summer internships**
- **Assessment and Certification** (Skill Based Aptitude Test (SBAT))
- **Induction Training (5 Days)**
- **In-Service Training (10 Days)**
- **Linkages with Sector Skill Councils and/or Artisans/Craftsmen**
- **Construction of Workshop/Laboratory cum Classroom**

As per suggestion by PSSCIVE, the focus should be on setting up the industry and industry-ready labs/ workshops - with state-of-the-art knowledge and futuristic technologies such as - IT, Artificial Intelligence, Machine Learning, 3-D printing, IOT, technology, Data Analytics, Space Technology, Business Intelligence, Augmented Reality/ Virtual Reality, Cyber Security, Data Science, Robotics etc.

# Project Innovation

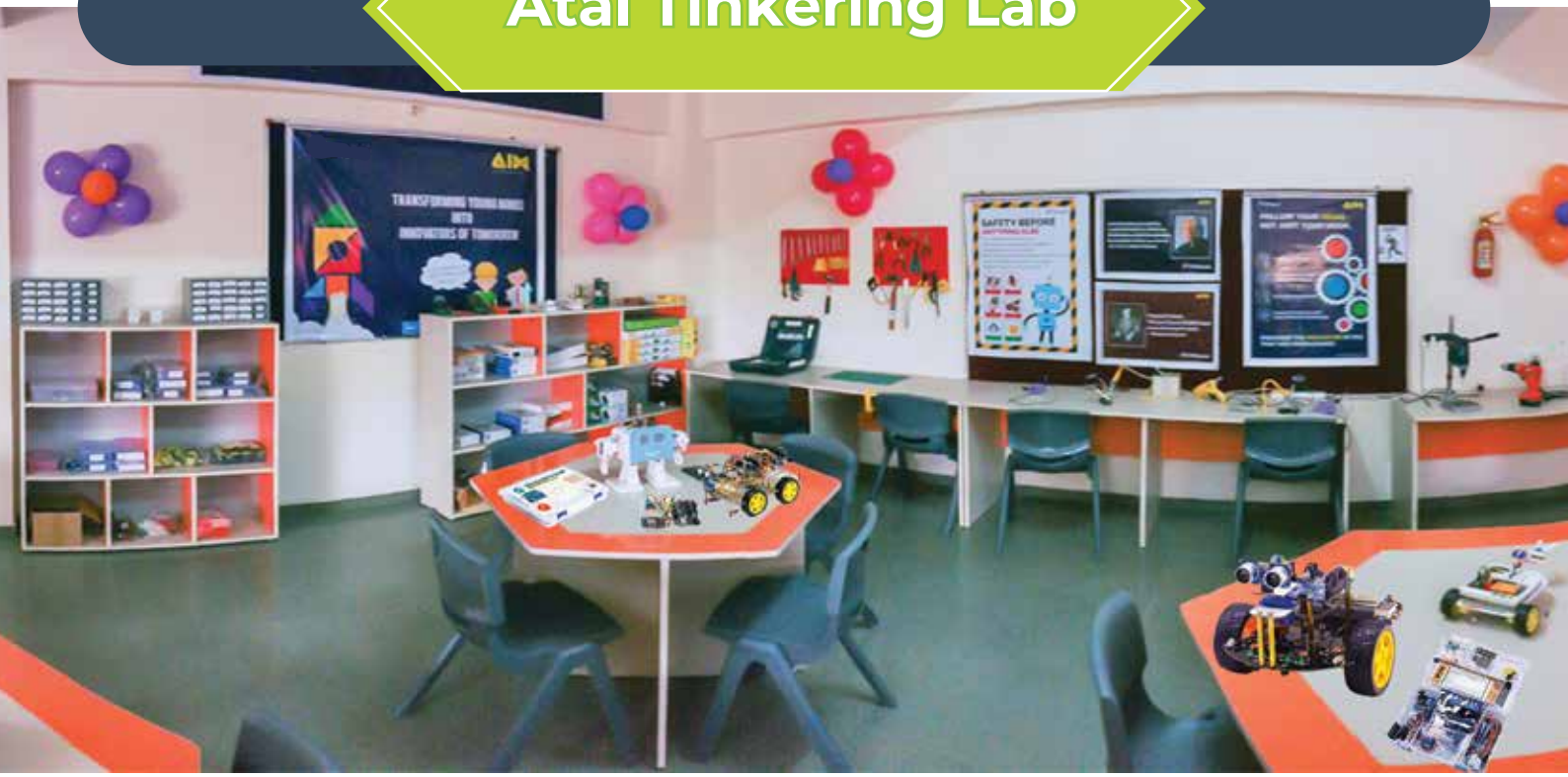
The purpose of vocational education is to impart technical and vocation-specific knowledge and it includes skills related to handicrafts, mechanical skills, arts and music, languages, 21st-century and new-age skills such as artificial intelligence, machine learning, design thinking etc.

- **Guidance and Career Counselling** (Career Counselling is a process that helps students to know and understand themselves and the world of work to make career, educational, and life decisions) We help student to explore skills and strengths, consider education levels, advise continuing education, and determine interests and personality types.




- **Organizing Health Camps**
  - o Ensuring the Physical and Mental well-being of students.
  - o Development of capacities that promote student wellness such as fitness, good health, psycho-social well-being, and sound ethical grounding are also critical for high-quality learning.
  - o We ensure convergence with School Health Programme (SHP) under Ayushman Bharat, which is a joint initiative of the Ministry of Health & Family Welfare (MoHFW) and the Ministry of Education
  - o Develop a socio-emotional learning framework.
  - o Psychological Counselling.
- **Citizenship skills, Constitutional values and Knowledge of India** (Building citizenship values, fundamental duties and responsibilities toward nation-building).
  - o Focusing on all round development of children.
- **Raw Material for Innovation Laboratory**

# Atal Tinkering Lab



## SERVICES

**Package 1:** Electronics Development, Robotics, Internet of Things and Sensors

**Package 2:**
Rapid Prototyping Tools

**Package 3:**
Mechanical, Electrical and Measurement tools

**Package 4:**
Power Supply & Accessories and Safety Equipment

**IT infrastructure**
Laptop and Projector

**Infrastructure**
Table, Chairs, Wall Designing, etc.

# FURNITURE (PRE-PRIMARY)

## CHILD FRIENDLY FURNITURE

## OUTDOOR PLAY MATERIALS

## SPORTS AND PHYSICAL EDUCATION

1

Sports Equipments

2

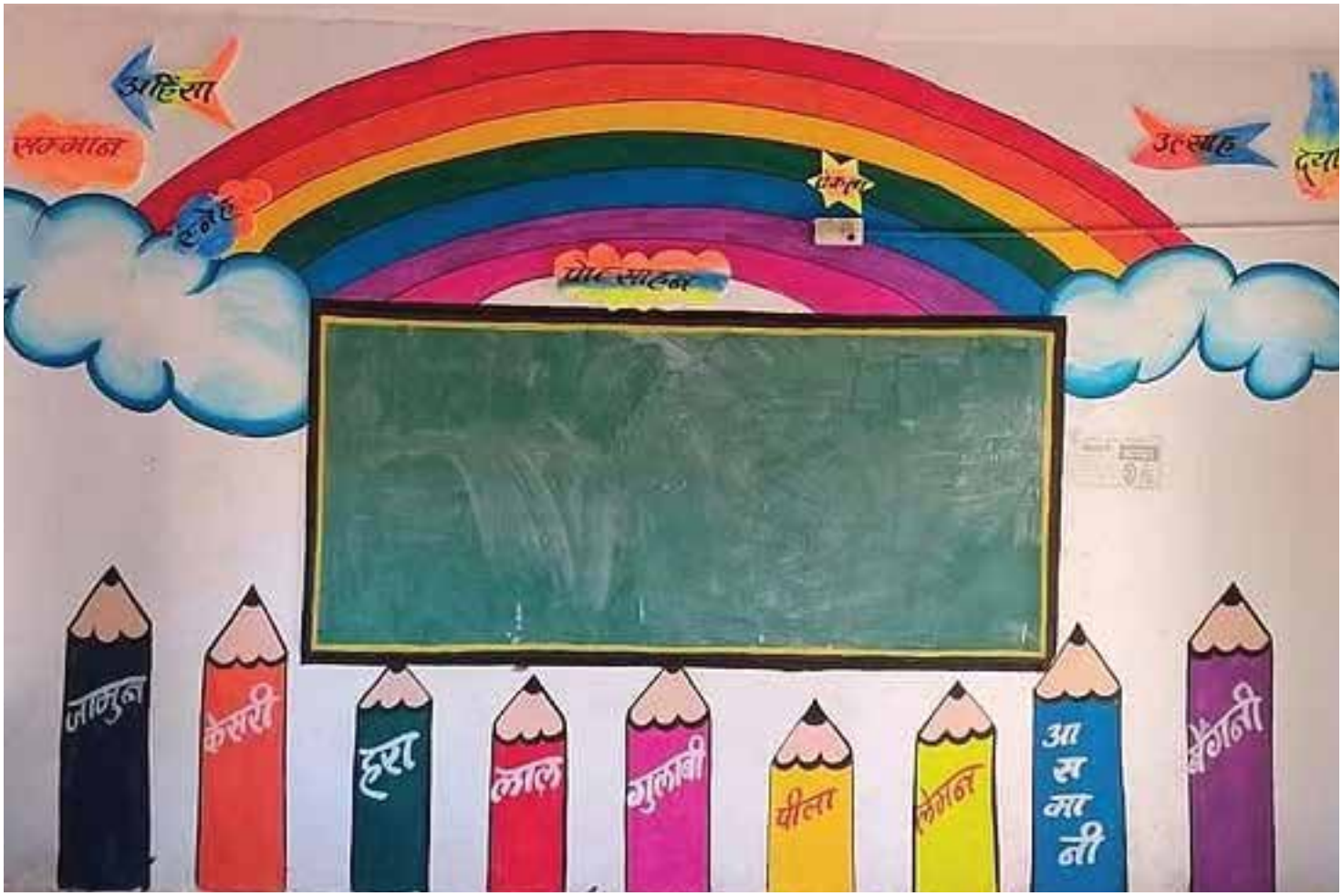
Development of Play Ground

3

Outdoor/Indoor Sports Game Facility

# BaLA Features

**Building as Learning Aids (BaLA)** is about innovatively treating the space and the built elements to make the existing school architecture more resourceful with higher educational value in a child-friendly manner.




We follow the guidelines related to the safety of the children in schools by Hon'ble Supreme Court, National Disaster Management Authority, National Commission for Protection of Child Rights etc. consolidated by DoSEL in the Guidelines for School Safety and security.

## BOOKS FOR LIBRARY


# Access Infrastructure - Adequacy, Functionality, Aesthetics and Safety

We also help Schools to strengthen up there existing labs and Rooms

01

Additional Classrooms

02

Art/Craft Room

03

Biology Lab

04

Boundary Wall

05

Chemistry Lab

06

Computer Room

07

CWSN Toilets

08

Electrification

09

Furniture

10

Lab Equipment (Biology)

11

Lab Equipment (Chemistry)

12

Lab Equipment (Physics)

13

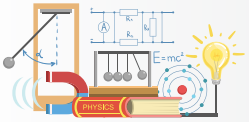
Lab Equipment (Sci Lab)

14

Library Room

15

Maths Lab

16

Physics Lab

17

Solar Panel

18

Social Science Lab

19

Infirmary and Health Management Facilities

20

Civil Construction Work

# DIGITAL LIBRARY

Provision of tablets with preloaded educational content for students of classes upper primary and above.

- **Personalised and Adaptive Learning (PAL).**
- **Updated and relevant content.**
- **Engaging Learning Process for Students.**

# ICT AND DIGITAL INITIATIVES

To Build 21st Century Human Capital by remodeling the realms of Employable workforce by using “Hands-on Technology & Collaborative ICT Learning.

**Integration of technology and pedagogy**

**Development of socially active classrooms**

**Students would be taught through multimedia presentations like PowerPoint or Google Doc Slides**

**Smart Classroom (Interactive Panel and Flat Panel)**

**Software and Hardware (Laptop, Desktop, Tablet, MyScoolserver etc.)**

# Lifestyle for Environment (LIFE) Green Schools

- **Activity Promoting Green School** Inter school workshop on the theme Design for Change to reduce use of plastic bags by creating various styles and designs of cloth and paper bags. Putting signage or name tags or other interesting information on plants and trees (tree-tagging).

- **Organize 'Swachhta Pakhwada' clean up drives actions on:**
  - How to create a healthy environment
  - How to integrate an ecological curriculum in all teaching and learning
  - Focusing on locally available nutritious food
  - Adopting sustainable community practices, such as, conservation of biodiversity
  - Use of locally produced products that are eco-friendly

- **Solar Power** Installation of solar panel in premises of school at places like rooftop/ vacant unused areas of campus etc. to meet the power needs and as power backup of the school, wherever possible. LED lights may also be used.
- **Rainwater Harvesting**
- **Organic Lifestyle**
- **Composting facility** (like vermi-composting) for kitchen and garden waste)
- **Drip Irrigation Systems** (i.e. made with earther pots or plastic bottles or any other waste material)
- **Colourful sorting dustbins painted in interesting characters for waste segregation**
- **Expert Talks** (On topics of importance like sustainable lifestyle.)
- **Fields Visit** (Waste-water treatment plant, a functioning reedbed or compositing toiler, or similar other place and link it with relevant content areas of the curriculum.)

1

**Uniforms for Students**

2

**Textbook for Students**

# Inclusive Practices and Gender Equity

Ensure Early identification and mainstreaming of CWSN.

- **Identifying children with special needs**
  - Informal Assessment
  - Formal Assessment
- **Reaction to special needs**
  - Classroom management and teaching strategies in the classroom
  - Modifying Examination and Assessment mechanisms
- **Identification and Assessment (Medical Assessment Camps)**
- **Special Educators for CWSN**
- **Providing Aids & Appliances**
- **Braille Stationary Material (Inc. Embossed Charts, globes etc)**

## GENDER AND EQUITY

**Training to Girls on Self-Defence**

**Vending Machine**

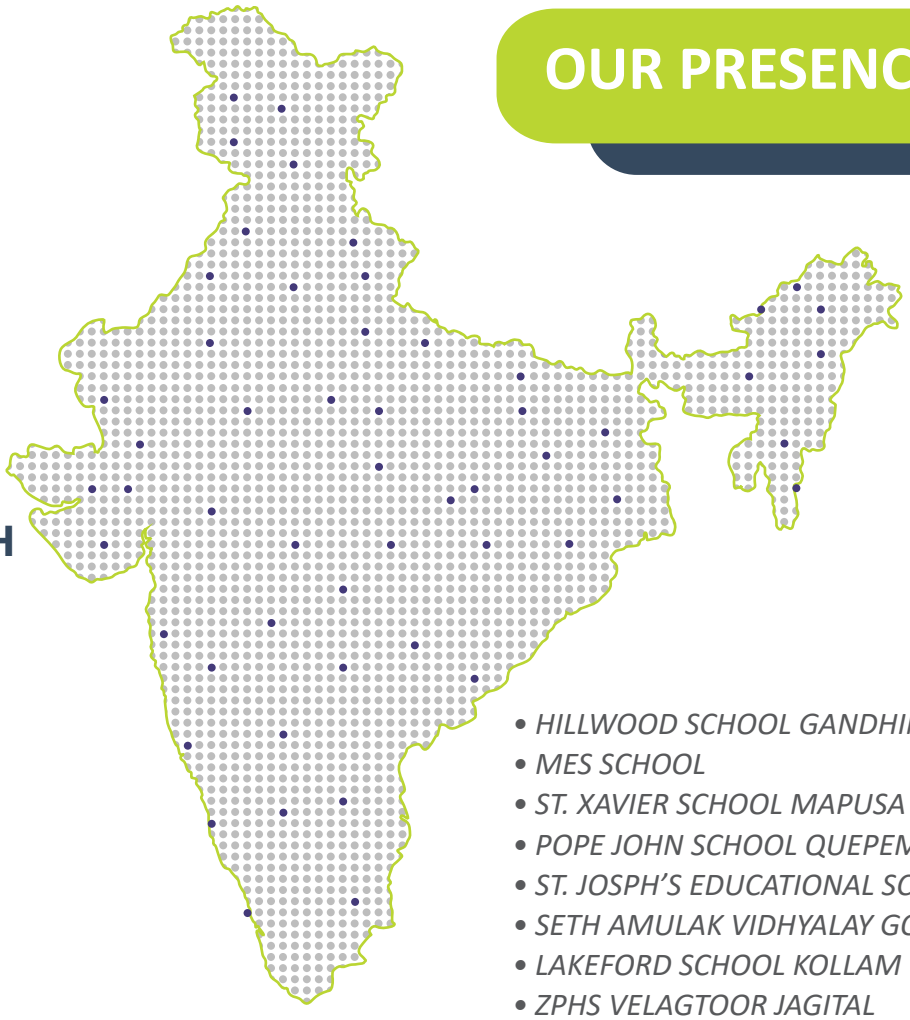

**Sanitory Pads**

**Incinerators**

- **Community Mobilization** Collaboration with NGOs/CSOs/Corporates for supporting capacity building, infrastructure and teaching-learning process as part of their Corporate Social Responsibility (CSR).
  - Involvement of students and teachers in New India Literacy Programme (NILP)
  - Alumni for remedial classes
  - Career guidance and mentoring to students
  - Infrastructure support
  - Preparation for cultural programmes or events, etc

# OUR PRESENCE

- DELHI-NCR
- MAHARASHTRA
- GUJARAT
- PUNJAB
- GOA
- NORTH-EAST
- UTTAR PRADESH
- MADHYA PRADESH
- AHMEDABAD
- AHMEDNAGAR
- NASHIK
- NAGPUR
- SOUTH GOA
- HYDERABAD
- GUWAHATI



- *HILLWOOD SCHOOL GANDHINAGAR*
- *MES SCHOOL*
- *ST. XAVIER SCHOOL MAPUSA*
- *POPE JOHN SCHOOL QUEPEM*
- *ST. JOSPH'S EDUCATIONAL SCHOOL*
- *SETH AMULAK VIDHYALAY GOTA*
- *LAKEFORD SCHOOL KOLLAM*
- *ZPHS VELAGTOOR JAGITAL*

- *GIC SRINAGAR*
- *GSSS RAYA TUNDA CHURU*
- *AHMEDABAD MUNICIPAL CORPORATION SCHOOL*
- *KV GARHARA BEGUSARAI*
- *MGM HIGHER SEC SCHOOL DIMAPUR*
- *MS SOMARAM KARIMNAGAR*
- *SLOPELAND SCHOOL KHONGJOM*
- *SAINT FRANSALIAN PASIGHAT*
- *ASSAM JATIAY BIDYALAY NOONMATI*
- *PRATIBHA HIGH SCHOOL WANAPARTHY*
- *SSM INTER COLLEGE*
- *SVSS BALIKA IC HARID*
- *ZPHS KONAPUR*
- *ZPHS YELLAREDDY PETRAJANNA SIRCIL*
- *JOHNSON GRAMMER SCHOOL HYDRABAD*
- *PNG SCHOOL GANGTOK*
- *DON BOSCO SCHOOL JORHAT*
- *DPS NUMALIGARH DT-GOLAGHAT*

# WHY ROBOTECH PVT. LTD.

**01 CLASSWISE CURRICULUM**
- Productwise
- Gradewise
- STEM/ICT intregrated with CBSE

**02 TEACHER TRAINING**
- Identification & Hiring
- Training of Part - Time/ Full-time Faculty Member

**03 COMPETITIONS & EVENTS**
- Regional/National competition
- Exhibitions/Fairs
- Summer & winter workshop

**04 MENTOR INTERACTION**
- Periodic interaction with industry mentors
- CSR initiatives

*Successfully established and running 500+ ATL LABS/CLASSES across india*
*Offering additional software based courses.*

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