NEXORA Labs
ORBIT OF INNOVATION

NEXORA STEM & AERONOVA
INNOVATION ECOSYSTEM

CURRICULUM FRAMEWORK

CLASSES 1–12

PROGRESSIVE LEARNING PATHWAY FOR FUTURE-READY SCHOOLS

NEP 2020 ALIGNED • NCF 2023 • CBSE ALIGNED • EXPERIENTIAL LEARNING

→FOUR PROGRESSIVE LEARNING PLANS •

NEXORA LAUNCH	NEXORA ORBIT	NEXORA UNIVERSE	AERONOVA
Foundation STEM Lab	Advanced Innovation Lab	Future Technology Lab	Aerospace Innovation Centre
₹150 Per Student / Month	*250 Per Student / Month	*350 Per Student / Month	₹450 Per Student / Month



DURATION 36 MONTHS PROGRESSIVE CURRICULUM

CURRICULUM INCLUDES

ROBOTICS | CODING & AI | ELECTRONICS | IOT | 3D DESIGN & PRINTING | DESIGN THINKING | INNOVATION & ENTREPRENEURSHIP | DRONE TECHNOLOGY | AEROSPACE ENGINEERING | ASTRONOMY & SPACE SCIENCE | PROJECT BASED LEARNING

HANDS-ON EXPERIMENTS | 100+ PROJECTS | SKILL BASED LEARNING | COMPETITIONS & CERTIFICATIONS | 21ST CENTURY SKILLS | CAREER READINESS | NATIONAL & GLOBAL EXPOSURE

NEXORA STEM & AERONOVA
INNOVATION ECOSYSTEM

CURRICULUM FRAMEWORK
CLASSES 1-12

DURATION
36 MONTHS

ABOUT NEXORA

Nexora STEM & AERONOVA is a future-ready innovation ecosystem empowering schools to transform classrooms into world-class STEM, AI, Robotics, and Aerospace learning hubs.

Our progressive curriculum, hands-on projects, and industry-grade tools prepare students with the skills, mindset, and confidence to solve real-world problems and lead the innovations of tomorrow.



Building today's innovators for tomorrow's world.

OUR PURPOSE

INSPIRE
Inspire curiosity and creativity in young minds.

EQUIP
Equip students with future-ready skills and technologies.

EMPOWER
Empower schools with a scalable innovation model.

TRANSFORM
Transform ideas into impactful real-world solutions.

WHY NEXORA?

- Hands-on & Experiential Learning
- Industry-aligned Curriculum
- Progressive Learning Pathway (1-12)
- Integrated Technology Ecosystem
- Project-Based Assessment
- Teacher Training & Continuous Support
- Safe, Scalable & Sustainable Model

OUR CORE VALUES

INTEGRITY | COLLABORATION | INNOVATION | EXCELLENCE | INCLUSION

OUR COMMITMENT

We are committed to delivering world-class STEM & Aerospace education that nurtures curiosity, builds competence, and creates confident, compassionate, and capable global citizens.

TRANSFORMING SCHOOLS | IMPACTING THOUSANDS OF STUDENTS | 100+ HANDS-ON PROJECTS | GLOBAL STANDARD TOOLS & LAB SETUPS | TRAINED & CERTIFIED EDUCATORS | NATIONAL & GLOBAL COMPETITIONS | CAREER FOCUSSED LEARNING

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CURRICULUM PHILOSOPHY

Learning Today | Innovating Tomorrow | Leading the Future

At Nexora STEM & AERONOVA, our curriculum is designed to nurture curiosity, creativity, and confidence through experiential learning, real-world projects, and innovation challenges.

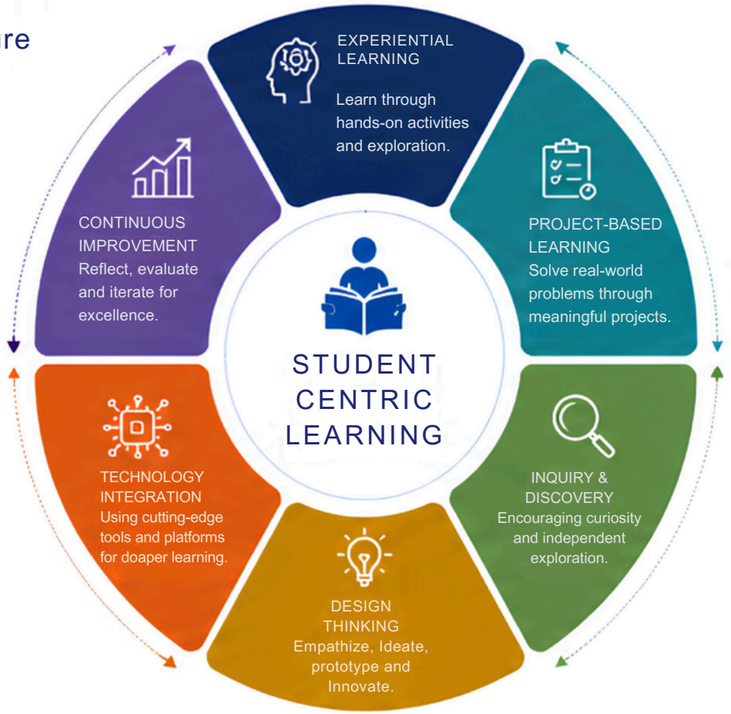
LEARN BY DOING
Hands-on, experiential learning that transforms concepts into real-world understanding.

THINK. CREATE. INNOVATE.
Encouraging critical thinking, creativity, and problem-solving through design thinking.

COLLABORATE & COMMUNICATE
Team-based projects that build collaboration, communication, and leadership skills.

CONNECT TO THE REAL WORLD
Industry-aligned tools, technologies, and projects that solve real-life challenges.

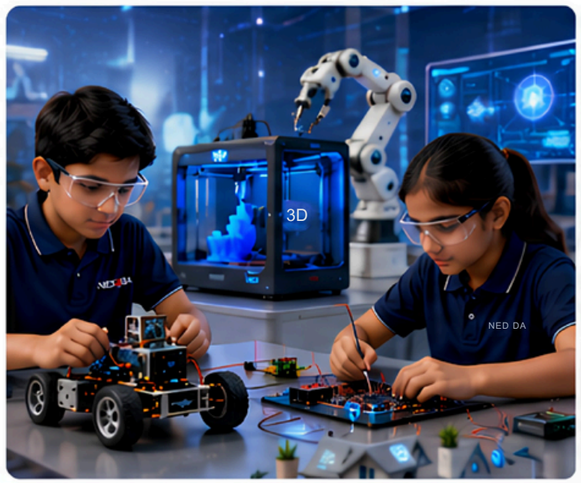
OUR PEDAGGICAL APPROACH



❝❝ We don't just teach subjects, we build innovators. "

OUR LEARNING PILLARS

CRITICAL THINKING | CREATIVITY & INNOVATION | COLLABORATION | COMMUNICATION | LIFELONG LEARNING







Our philosophy is to empower every learner with the knowledge, skills, mindset, and values to become confident problem-solvers and future-ready global citizens.

OUR CORE PRINCIPLES

NEP 2020 & NCF 2023 ALIGNED | NCERT & CBSE INTEGRATED | PROGRESSIVE GRADE-WISE LEARNING | HANDS-ON, MINDS-ON, HEARTS-ON | INNOVATION, ENTREPRENEURSHIP & LEADERSHIP | SUSTAINABILITY & SOCIAL RESPONSIBILITY | ASSESS, REFLECT & CELEBRATE GROWTH

OUR PROMISE TO SCHOOLS

WORLD-CLASS CURRICULUM | TRAINED & CERTIFIED EDUCATORS | STATE-OF-THE-ART LAB SETUP | CONTINUOUS SUPPORT & CAPACITY BUILDING | MEASURABLE LEARNING OUTCOMES | STUDENT SUCCESS IS OUR SUCCESS

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PLAN PROGRESSION

ONE JOURNEY. ENDLESS POSSIBILITIES.

Nexora's four-tier progressive curriculum takes students from strong foundations to advanced innovation and leadership across 11 future-ready domains. Each plan builds on the previous one, ensuring a seamless and continuous learning experience.

STUDENT LEARNING JOURNEY

EXPLORE
Discover interests and build curiosity through exploration.

BUILD
Apply knowledge to create models, systems and solutions.

INNOVATE
Think critically, innovate and develop real-world solutions.

LEAD
Engineer advanced systems and lead innovations for a better tomorrow.

PLAN 1
NEXORA LAUNCH
Foundation STEM Lab
₹150
Per Student / Month

DOMAINS COVERED (4)
- Robotics Fundamentals
- Coding & Computational Thinking
- Electronics Basics
- Design Thinking & Maker Education

Projects: 20 – 25
Hardware Kits: Beginner
Software Platforms: 3
Learning Level: Foundation
Focus: Explore • Learn • Create

PLAN 2
NEXORA ORBIT
Advanced Innovation Lab
₹250
Per Student / Month

DOMAINS COVERED (6)
- Robotics Fundamentals
- Coding & Computational Thinking
- Electronics Basics
- Design Thinking & Maker Education
- Internet of Things (IoT)
- 3D Design & Printing

Projects: 35 – 40
Hardware Kits: Advanced
Software Platforms: 6
Learning Level: Builder
Focus: Build • Prototype • Experiment

PLAN 3
NEXORA UNIVERSE
Future Technology Lab
₹350
Per Student / Month

DOMAINS COVERED (8)
- Robotics Fundamentals
- Coding & Computational Thinking
- Electronics Basics
- Design Thinking & Maker Education
- Internet of Things (IoT)
- 3D Design & Printing
- Artificial Intelligence (AI)
- Innovation & Entrepreneurship

Projects: 50 – 60
Hardware Kits: Professional
Software Platforms: 9
Learning Level: Innovator
Focus: Innovate • Solve • Create Impact

PLAN 4
AERONOVA
Aerospace Innovation Centre
₹450
Per Student / Month

DOMAINS COVERED (11)
- Robotics Fundamentals
- Coding & Computational Thinking
- Electronics Basics
- Design Thinking & Maker Education
- Internet of Things (IoT)
- 3D Design & Printing
- Artificial Intelligence (AI)
- Innovation & Entrepreneurship
- Drone Technology
- Aerospace Engineering
- Astronomy & Space Science

Projects: 75 – 100
Hardware Kits: Aerospace
Software Platforms: 12
Learning Level: Specialist
Focus: Engineer • Explore • Lead

DOMAINS COVERED (11 TOTAL)
- Robotics Fundamentals
- Coding & Computational Thinking
- Electronics Basics
- Design Thinking & Maker Education
- Internet of Things (IoT)
- 3D Design & Printing
- Artificial Intelligence (AI)
- Innovation & Entrepreneurship
- Drone Technology
- Aerospace Engineering
- Astronomy & Space Science

PROGRESSION AT A GLANCE

LAUNCH → FOUNDATION
4 Domains | 20–25 Projects
Build Strong STEM Fundamentals

ORBIT → BUILDER
6 Domains | 35–40 Projects
Build Smart Systems & Prototypes

UNIVERSE → INNOVATOR
8 Domains | 50–60 Projects
Create Intelligent Solutions

AERONOVA → SPECIALIST
11 Domains | 75–100 Projects
Lead Aerospace & Space Innovations

WHAT STUDENTS GAIN
- HANDS-ON LEARNING
- 100+ REAL-WORLD PROJECTS
- INDUSTRY-ALIGNED SKILLS
- CERTIFICATIONS & RECOGNITION
- INNOVATION PORTFOLIO
- CAREER READINESS
- NATIONAL & GLOBAL EXPOSURE

EXPLORE TODAY • BUILD SKILLS • INNOVATE SOLUTIONS • LEAD TOMORROW

NEXORA STEM & AERONOVA
INNOVATION ECOSYSTEM

PROJECTS BANK – 120 PROJECTS
EXPLORE • BUILD • INNOVATE • IMPACT

CURRICULUM FRAMEWORK CLASSES 1 – 12 | DURATION 36 MONTHS

PLAN 1 – NEXORA LAUNCH
FOUNDATION STEM LAB
Domains Covered: 4
120 PROJECTS (30 Projects per Class)

TOP PROJECTS (Sample – 30)

#	PROJECT NAME	DOMAIN	CLASS	DIFFICULTY
1	LED Blinking Circuit	Electronics	1 – 12	
2	Paper Cup Telephone	Design Thinking	1 – 6	
3	DIY Windmill	Design Thinking	2 – 8	
4	Simple Water Alarm	Electronics	3 – 8	
5	Line Following Robot	Robotics	4 – 12	
6	Traffic Light Model	Electronics	4 – 10	
7	Robotic Arm (Basic)	Robotics	5 – 12	
8	Obstacle Avoider Robot	Robotics	5 – 12	
9	Touch Sensor Lamp	Electronics	5 – 10	
10	Smart Dustbin (IR)	Electronics	6 – 12	
...	...	...	...	...
21	Mini Safe Box	Electronics	9 – 12	
22	Home Security Alarm	Electronics	9 – 12	
23	Bluetooth Car (Basic)	Robotics	9 – 12	
24	Plant Watering Alarm	Electronics	9 – 12	
25	Automatic Night Lamp	Electronics	10 – 12	
26	Line Maze Solver (Basic)	Robotics	10 – 12	
27	Heartbeat Sensor (Basic)	Electronics	11 – 12	
28	Voice Controlled Switch	Electronics	11 – 12	
29	Password Based Lock	Electronics	11 – 12	
30	Smart Helmet (Basic)	Electronics	12	

Focus: Explore • Learn • Create

PLAN 2 – NEXORA ORBIT
ADVANCED INNOVATION LAB
Domains Covered: 6
120 PROJECTS (30 Projects per Class)

TOP PROJECTS (Sample – 30)

#	PROJECT NAME	DOMAIN	CLASS	DIFFICULTY
1	IoT Based Smart Light	IoT	6 – 12	
2	Temperature Monitor (IoT)	IoT	6 – 12	
3	IR Remote Controlled Car	Robotics	6 – 12	
4	Bluetooth Robot	Robotics	6 – 12	
5	Smart Irrigation System	IoT	6 – 12	
6	RFID Attendance System	Electronics	7 – 12	
7	Gas Leakage Detector	Electronics	7 – 12	
8	3D Printed Keychain	3D Printing	6 – 12	
9	TinkerCAD Designer Toy	3D Design	6 – 10	
10	Weather Station (IoT)	IoT	7 – 12	
...	...	...	...	...
21	IoT Home Automation	IoT	9 – 12	
22	Smart Energy Meter	IoT	9 – 12	
23	Gesture Controlled Car	Robotics	9 – 12	
24	3D Printed Robotic Gripper	Robotics	9 – 12	
25	Soil Moisture Monitor	IoT	10 – 12	
26	App Controlled Robot	Robotics	10 – 12	
27	Face Recognition Door Lock	Electronics	11 – 12	
28	Smart Greenhouse	IoT	11 – 12	
29	Multi-sensor Data Logger	IoT	11 – 12	
30	Wearable Fitness Band	Electronics	12	

Focus: Build • Prototype • Experiment

PLAN 3 – NEXORA UNIVERSE
FUTURE TECHNOLOGY LAB
Domains Covered: 8
120 PROJECTS (30 Projects per Class)

TOP PROJECTS (Sample – 30)

#	PROJECT NAME	DOMAIN	CLASS	DIFFICULTY
1	AI Chatbot (Rule Based)	AI	7 – 12	
2	Image Classifier (Teachable ML)	AI/ML	7 – 12	
3	Smart Waste Bin (AI + IoT)	AI + IoT	7 – 12	
4	Voice Assistant (Python)	AI	7 – 12	
5	AI Hand Gesture Control	AI/ML	8 – 12	
6	Stock Price Predictor (ML)	AI/ML	8 – 12	
7	Smart Mirror with AI	AI + IoT	8 – 12	
8	ChatGPT Powered Q&A Bot	AI	9 – 12	
9	Object Detection (YOLO)	AI/ML	9 – 12	
10	Smart Traffic Management	AI + IoT	9 – 12	
...	...	...	...	...
21	AI Based Attendance System	AI/ML	10 – 12	
22	Image Caption Generator	AI/ML	10 – 12	
23	Predictive Maintenance Model	AI/ML	10 – 12	
24	AI Voice Emotion Detector	AI/ML	11 – 12	
25	Autonomous Line Follower	AI + Robotics	11 – 12	
26	AI Based Health Monitor	AI + IoT	11 – 12	
27	Computer Vision Inspection	AI/ML	12	
28	AI Resume Screener	AI/ML	12	
29	Smart City Dashboard	AI + IoT	12	
30	AI Personal Tutor	AI/ML	12	

Focus: Innovate • Solve • Create Impact

PLAN 4 – AERONOVA
AEROSPACE INNOVATION CENTRE
Domains Covered: 11
120 PROJECTS (30 Projects per Class)

TOP PROJECTS (Sample – 30)

#	PROJECT NAME	DOMAIN	CLASS	DIFFICULTY
1	Paper Airplane (Aerodynamics)	Aerospace	6 – 10	
2	Water Rocket	Aerospace	6 – 10	
3	Balsa Glider	Aerospace	6 – 10	
4	Straw Rocket Launcher	Aerospace	7 – 10	
5	Parachute Drop Test	Aerospace	7 – 10	
6	Drone Basics (Simulator)	Drone Tech	8 – 12	
7	Quadcopter Assembly	Drone Tech	8 – 12	
8	FPV Drone (Basic)	Drone Tech	9 – 12	
9	RC Plane – Build & Fly	Aerospace	9 – 12	
10	Wind Tunnel Model	Aerospace	9 – 12	
...	...	...	...	...
21	Payload Delivery Drone	Drone Tech	10 – 12	
22	Fixed Wing UAV	Drone Tech	10 – 12	
23	Satellite Model with TLE	Space Science	10 – 12	
24	Rocket with Staging	Aerospace	11 – 12	
25	CanSat (Weather Satellite)	Space Science	11 – 12	
26	Mission Control Dashboard	Aerospace	11 – 12	
27	Autonomous Drone (AI)	Drone Tech + AI	11 – 12	
28	High Altitude Balloon Payload	Aerospace	12	
29	CubeSat Design (3U)	Space Science	12	
30	Space Habitat Design	Aerospace	12	

Focus: Engineer • Explore • Lead

DOMAINS COVERED (BY PLAN)

DOMAINS COVERED (BY PLAN)	PLAN 1 LAUNCH	PLAN 2 ORBIT	PLAN 3 UNIVERSE	PLAN 4 AERONOVA
Robotics & Automation – Build robots, mechanisms and automation systems	●	●	●	●
Coding & Computational Thinking – Programming, logic and problem solving	●	●	●	●
Electronics & Sensors – Circuits, components, sensors and embedded systems	●	●	●	●
Design Thinking & Maker Education – Ideation, creativity, prototyping		●	●	●
Internet of Things (IoT)		●	●	●
3D Design & Printing			●	●
Artificial Intelligence (AI/ML)			●	●
Data Science & Analytics			●	●
Drone Technology				●
Aerospace Engineering				●
Astronomy & Space Science				●

PROJECT DIFFERENCES BY PLAN

PLAN 1 – LAUNCH
Foundation Level
- Basic concepts & simple builds
- Hands-on exploration
- Low cost materials
- Focus on curiosity & creativity
- Projects are guided step-by-step

PLAN 2 – ORRIT
Intermediate Level
- Integration of multiple technologies
- IoT, 3D design, sensors & microcontrollers
- Real-life problem solving
- More autonomy in building
- Prototype based learning

PLAN 3 – UNIVERSE
Advanced Level
- AI/ML, Data & Automation
- Complex system development
- Data-driven decision making
- Independent innovation
- Impact driven solutions

PLAN 4 – AERONOVA
Expert Level
- Aerospace, Drone & Space Tech
- Engineering design cycle
- Advanced tools & simulations
- Real-world applications
- Research & future technologies

DIFFICULTY LEVEL KEY

Beginner	Intermediate	Advanced	Expert
Simple tools & concepts	Multi-step build with guidance	Complex concepts & integration	Research level & innovation

CLASS & AGE GUIDE

Primary	Middle	Secondary	Senior Secondary
Class 1 – 5	Class 6 – 8	Class 9 – 10	Class 11 – 12
Age 6 – 10 yrs	Age 11 – 13 yrs	Age 14 – 16 yrs	Age 17 – 18 yrs

PROJECT FEATURES

Real-World Application | Hands-on Learning | 21st Century Skills | Cross Domain Integration | Innovation & Entrepreneurship | Portfolio & Competitions

Aligned with NEP 2020 & NCERT | Skill Based Learning | Inquiry Driven | Experiential Education | Future Ready Skills

120 PROJECTS. 4 PLANS. ENDLESS POSSIBILITIES.

NEXORA STEM & AERONOVA
INNOVATION ECOSYSTEM

EXPLORE • BUILD • INNOVATE • IMPACT

CURRICULUM FRAMEWORK
CLASSES 1 – 12

DURATION
36 MONTHS

PARENT ENGAGEMENT – TOGETHER WE INSPIRE INNOVATORS

Nexora believes that engaged parents create empowered learners.
We build a strong home-school partnership to support every child's STEM journey.

PARENT PORTAL ACCESS
Access student progress, project updates, attendance, assessments and certificates in real time.

REGULAR COMMUNICATION
Monthly newsletters, class updates, and important announcements about activities and achievements.

WORKSHOP & WEBINARS
Expert-led sessions for parents on STEM careers, technology trends, and ways to support learning at home.

STEM AT HOME RESOURCES
Curated DIY activities, fun challenges and learning resources to explore together as a family.



PROJECT SHOWCASE EVENTS
Parents are invited to exhibitions, demo days and innovation fairs to celebrate student creativity.

PROGRESS REPORTS
Term-wise reports with strengths, improvement areas and personalized learning suggestions.

PARENT-TEACHER CONNECT
Regular PTM, one-to-one interactions and feedback sessions to ensure holistic development.

RECOGNITION & CELEBRATION
Celebrate student achievements through certificates, awards and special recognition programs.

HOW PARENTS CAN MAKE AN IMPACT

- Encourage Curiosity & Asking Questions
- Celebrate Small Wins & Efforts
- Provide a Safe Space to Explore & Fail
- Connect STEM Learning to Real Life
- Support Project Work & Key Milestones
- Inspire Big Dreams & Future Readiness

> When parents and schools work together, children don't just learn – they thrive and lead the future.

LEARNING OUTCOMES – FUTURE READY STUDENTS

Nexora STEM & AERONOVA curriculum ensures holistic development across knowledge, skills, mindset and real-world application.

KNOWLEDGE
What Students Learn

- Strong foundation in STEM concepts
- Disciplinary knowledge aligned with NEP 2020
- Awareness of emerging technologies
- Real-world application of learning

SKILLS
What Students Do

- Critical thinking & problem solving
- Coding, design & prototyping
- Collaboration & communication
- Data analysis & logical reasoning
- Hands-on building & making

MINDSET
How Students Think

- Curiosity & inquisitiveness
- Growth mindset & resilience
- Creativity & innovation
- Confidence & adaptability
- Ethical & responsible technology use

APPLICATION
Where Students Apply

- Solve real-world problems
- Design and develop innovative solutions
- Participate in competitions & challenges
- Create impact through STEM projects
- Build portfolio for future opportunities

FUTURE READINESS
Where Students Go

- Career awareness across STEM fields
- Research & innovation capabilities
- Entrepreneurial thinking
- Prepared for higher education & global opportunities
- Lifelong learning attitude

STUDENTS WILL BECOME

- Confident Problem Solvers
- Innovative Thinkers
- Skilled Technologists
- Responsible Leaders
- Global Citizens
- Future Ready

MEASURABLE IMPACT

Improved Academic Performance
Concept clarity and application lead to better results.

Stronger Practical Skills
Hands-on projects build real skills that last a lifetime.

Increased Confidence & Communication
Students express ideas, present solutions and lead with confidence.

Achievement in Competitions
Participation in inter-school, national & international competitions.

Better Career Readiness
Build a strong foundation for top universities & future careers.

TOGETHER, WE BUILD THE INNOVATORS OF TOMORROW

- STRONGER PARTNERSHIP
- HOLISTIC DEVELOPMENT
- REAL-WORLD LEARNING
- BRIGHTER FUTURES

NEXORA STEM & AERONOVA
EXPLORE • BUILD • INNOVATE • IMPACT

NEXORA STEM & AERONOVA

EMPOWERING YOUNG MINDS TO
EXPLORE, INNOVATE & EXCEL

CLASSES 1 TO 12

NEP 2020 & NCERT ALIGNED

THANK YOU!

Thank you for partnering with Nexora STEM & AERONOVA
to empower young minds with future-ready skills.

Together, we are building a generation of innovators,
problem solvers and changemakers who will
create a smarter, sustainable and better tomorrow.

INSPIRE Curiosity | **INNOVATE** Create Solutions | **EXCEL** Achieve Excellence | **IMPACT** Build a Better Future



> "The best way to predict the future is to create it."
> – Together with Nexora

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GET IN TOUCH

- STEM Lab Setup & Implementation
- Curriculum & Teacher Training
- Student Workshops & Competitions
- Technical Support & Maintenance
- Partnerships & Collaborations

LET'S BUILD THE FUTURE TOGETHER!

For school partnerships, demo sessions, or any queries, feel free to connect with our team.



SCHOOL PARTNERSHIPS Creating Innovation Hubs | **TRAINING & SUPPORT** Empowering Educators | **INDUSTRY ALIGNED** Future-Ready Skills | **COMPETITIONS & RECOGNITION** Encouraging Excellence | **GLOBAL EXPOSURE** Connecting to Opportunities