

SCIENCEUTSAV[®]
Science is awesome

PRESENTS



STEAM

Tinkering Lab and MakerSpace

| Science | Technology | Engineering | Arts | Mathematics |



UNIQUENESS



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We believe
that
**“practicality
is
everything”!**



ScienceUtsav is a parallel educational program for children of age 05 to 14 years.

We have created an interactive learning platform for the participants through hands-on activities, science experiments, fun projects, science games, puzzles, science expeditions, role plays and other innovative pedagogy techniques.



OUR CLIENTELE



5 E'S OF SCIENCEUTSAV



EXPLAIN

Role Plays &
Concept Maps



ELABORATE

Make and take
home projects



EVALUATE

Worksheets



ENGAGE

Debate and
Discussions



EXPLORE

Hands on
Experiments

WE USE A PROVEN TECHNIQUE OF TEACHING SCIENCE
THAT INVOLVESTHE **5 E ELEMENTS** TO MAKE LEARNING FUN



OUR STEAM OFFERINGS



Curriculum Based Program (Schools) C-STEAM

Academic support to children at schools through STEAM based syllabus which complements the existing teaching method and makes learning science more fun, interesting and interactive. Program has activities, experiments and projects based on the curriculum which goes hand in hand with the lesson plan in school.



STEAM Festivals & Exhibitions

Participants explore science under the STEAM lens with various activities on the concept of energy. This is a festival of sorts with focus on Science, Technology, Engineering, Arts and Maths of everything we see around us! Programs are designed on particular topics with relevant do it yourself (DIY) projects to take home for children.



STEAM based Tinkering Lab and Robo Scientist

This is an afterschool fun program where participants are introduced to concepts of science using hands on activities and experiments. Participants build take home projects in every workshop.



STEAM Summer Camp

It has been designed based on the past experience of successful years in conducting science summer camps. The workshops are in such a manner that there are adequate take home working models and supporting experiments.

About ScienceUtsav

ScienceUtsav(meaning Festival of Science), with **Ten years** of experience, is a pioneer in promoting and creating interactive **STE(A)M ecosystem in Schools and Learning Spaces**. The knowledge we have gained over the last decade has helped us achieve our vision of honing children's innovative skills and turning their imagination into reality.

We accomplish this by installing **Tinkering Lab & Makerspace**, relevant to the STE(A)M curriculum of grades 1 to 9, which includes Infrastructure, Curriculum-based STEM Kits, Training, Learning Management System, Robotics & Coding and Accreditation.

Our C-STEM (Curriculum-based STEM) programs connect curriculum to the industry with the help of Make & Take Home Projects, Research-based Experiments, Skill-building Activities, Higher order thinking approaches through Workbooks & Worksheets Role plays and other pedagogy techniques.

We make everyone celebrate Science like any other Festivals with our theme-based **Science/STEAM Festivals** with help of dramatized science shows, Experience zones, Workshops and Games

Why STEAM-based education system???

1. STEAM education nurtures **design thinking** philosophy and helps in building **Problem-solving attitude amongst students**.
2. STEAM helps create the right mindset to choose their **favourite career** by introducing students to varied career options in Physics, Chemistry, Biology, Natural Science, and Astronomy.
3. STEAM education also makes students aware of the **futuristic technologies** like Robotics, Internet of Things, Electronics and Coding.
4. STEAM helps students **think like a scientist** with research-based experiments and hands-on projects.
5. STEAM creates **critical thinkers** with the scientific mindset.

How is STEAM making student's career ready

1. STEAM education makes basics strong and gives students a competitive edge in their future education.
2. It helps in nurturing **research attitude** by creating **inquisitiveness** and **logical reasoning** amongst students.
3. STEAM-based curriculum has **real-life applications** to help students give them better **concept clarity with practical learning**.
4. STEAM helps in developing **tinkering skills** by providing **hands-on and minds-on** activities for the students which further enhances student's imagination and creativity.

Advantages for the children:

- Children learn by Prototyping and **project building**
- Children learn with **research based fun experiments**
- Children get to use **technology based applications**
- Children solve **higher order thinking worksheets/Workbooks** answer to improve their aptitude
- Children work individually also in groups to learn **collaborations**

We seek your support to train the children of your school, who are the future of our country. With your collaboration, we can help children to dream and achieve wonders like building driver-less electric cars similar to TESLA or a digital personal assistant like Amazon Echo or become internet pioneers like Google and maybe even beyond!



A. Technical Summary

Tinkering Lab and Maker Space (TLMS)

a. Programs details:

Curriculum-based Tinkering classes which nurture a child's problem-solving capabilities and logical reasoning capabilities with help of STEAM methodology.

- Audience: Grade 1 to Grade 9

b. Offerings

I. Curriculum Based STEM Programs

Package 1: Grade wise curriculum based kits

- Explore Kits

Package 2: Discovery Lab

- New Age Science Lab
- Hands-On Math Lab

II. Tinkering Lab and Maker Space

Package 3: Maker Space

- Engineering Tools required to build the projects
- Consumables
- Inventor Kits

Package 4: Technology based Tinkering Lab

- Robotics and IOT Kit
- Arduino Kit
- Consumables
- Engineering Tools required to build the projects

All programs are driven by LEARNING MANAGEMENT SYSTEM
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I. Curriculum Based STEM Programs

Package1. Curriculum Based Project Kits

Explorer Kit: Activity kits to encourage child's creativity using research based approach to believing every concept. Activity kits to build and understand the basic concepts by investigative methods. Eg. Parachute & air pressure



No. of Sessions: Customizable from 12 to 30 sessions per year

Item	Description	No. of Kits
Physics STEM Kit	Grade wise Make and Take Home Kit	As per No. of Participants
Chemistry STEM Kit	Grade wise Make and Take Home Kit	
Biology STEM Kit	Grade wise Make and Take Home Kit	

Class plan: A mix of Make and Take Home Projects, Hands-On Experiments, Role-plays, Concept Maps, Skill Building activities, Workbooks and Worksheets.



Package2: Discovery Lab:

Inquiry based experimentation kits which are related to the curriculum. Experiment kits to ensure basics are clear to lay a strong learning foundation. Eg. Properties of light

- Teaching Aids for Science (30 Experiments)
- Teaching Aids for Math (30 Experiments)
- I am a Maker Scientist (Hands-On Experiments Physics 30 Experiments)
- I am Nature Scientist (Chemistry 30 Experiments)
- I am Nature Scientist (Biology 30 Experiments)



Item	Description	Number of Kits
Teaching Aids of Physics Chemistry and Biology	All Experiment set up for the demonstrations Set of 30 Experiments	1 Set
Teaching Aids of Maths	Math Activity Kit Set of 30 Experiments	4 Set
I am Maker Scientist	Set of Hands-On Physics Experiment kit for every individual in groups Set of 60 Experiments	4 Set
Nature Scientist (Chemistry 30 Experiments)	Set of Hands-On Physics Experiment kit for every individual in groups Set of 30 Experiments	4 Set
Nature Scientist (Biology 30 Experiments)	Set of Hands-On Physics Experiment kit for every individual in groups Set of 30 Experiments	4 Set

II. Tinkering Lab and Maker Space

Package 3: Maker Space

Materials to build a STEAM project from scratch. Tinkering involves independent thinking and explores different ideas to reach the goal. Helps children learn more than the school topics. Eg. Build a solar bug

MakerSpace Encouraging children to build a Science fair project with help of design templates and recyclable materials. Helps children understand project lifecycle, enhance team work and makes them prepared for future by knowing application of their knowledge.



Inventor Kit: Curriculum Based STEAM Kit whom students use to build a simple Gadget, Toy or home utility. Project kits are provided along with materials and ideas to prototype the model before building the project . Eg. Calling bell

Item	Description	No. of Kits
Inventor Kit	Take home Projects	Individual Kits
Consumables Kit	Consumables Kit including	TBD
LEGO Based Kits/Puzzles	Lego based Kits for Creativity and Spatial intelligence	4 Sets
Tool Kit	All types of Tools including Screw drivers, Scissors, Glue Guns, Soldering Guns, Measuring Tools etc	1 set
Make and Break Projects	Engineering Project building Materials and Consumables like Electronics, MDF, etc	4 Sets



Package 4: Technology Tinkering Lab

Technology Lab: Robotics and Automation Lab, IoT Kits, Arduino and Sensor Kits

Item	Description	No. of Kits
Robotics Kits	Block based Automation kits which are used to build Engineering prototypes Set of 50 Experiments	11
Project Building Kit	Building Materials including MDF structures, Stationaries, Templates Set of 30 Experiments	11
Complete Arduino Kit	Arduino Kits with different Sensors and Output devices Set of 50 Experiments	11
Programming (Coding)	Grade wise programming content from grade 1 to 9	NA
IOT Device or Humanoid or Google Home	Any smart device for the interaction	1

Technology Lab



Transfer and Training	Online Learning Management System	As per No. of Participants
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Knowledge Transfer and Training

Learning Management System: Online Guide for teachers for training

Individual learning management system for every participant where they have an access to Procedure docs, Content, Quizzes and Assignments.



c. Accreditation and Certification

STEM ecosystem will be created to monitor the progress of the course and certificate will be provided based the on course with attestation from Code.org, Michigan, USA.



d. Prerequisites from the School

- Projector for the Learning Management System
- Internet
- Lab infrastructure and Seating Arrangement
- Enthusiastic STEAM Teacher (ScienceUtsav can help with STEM Teachers in the places where we have presented our Franchise operations)
- ICT Lab (Optional)



ScienceUtsav encourages children to ***ask questions about the 'How and Why'*** of Science to make the answering process exciting as well as thought provoking.

ScienceUtsav's mission is to kindle reasoning and logical thinking amongst participants. We, at ScienceUtsav, share the motto of ***'Practicality is everything'***.

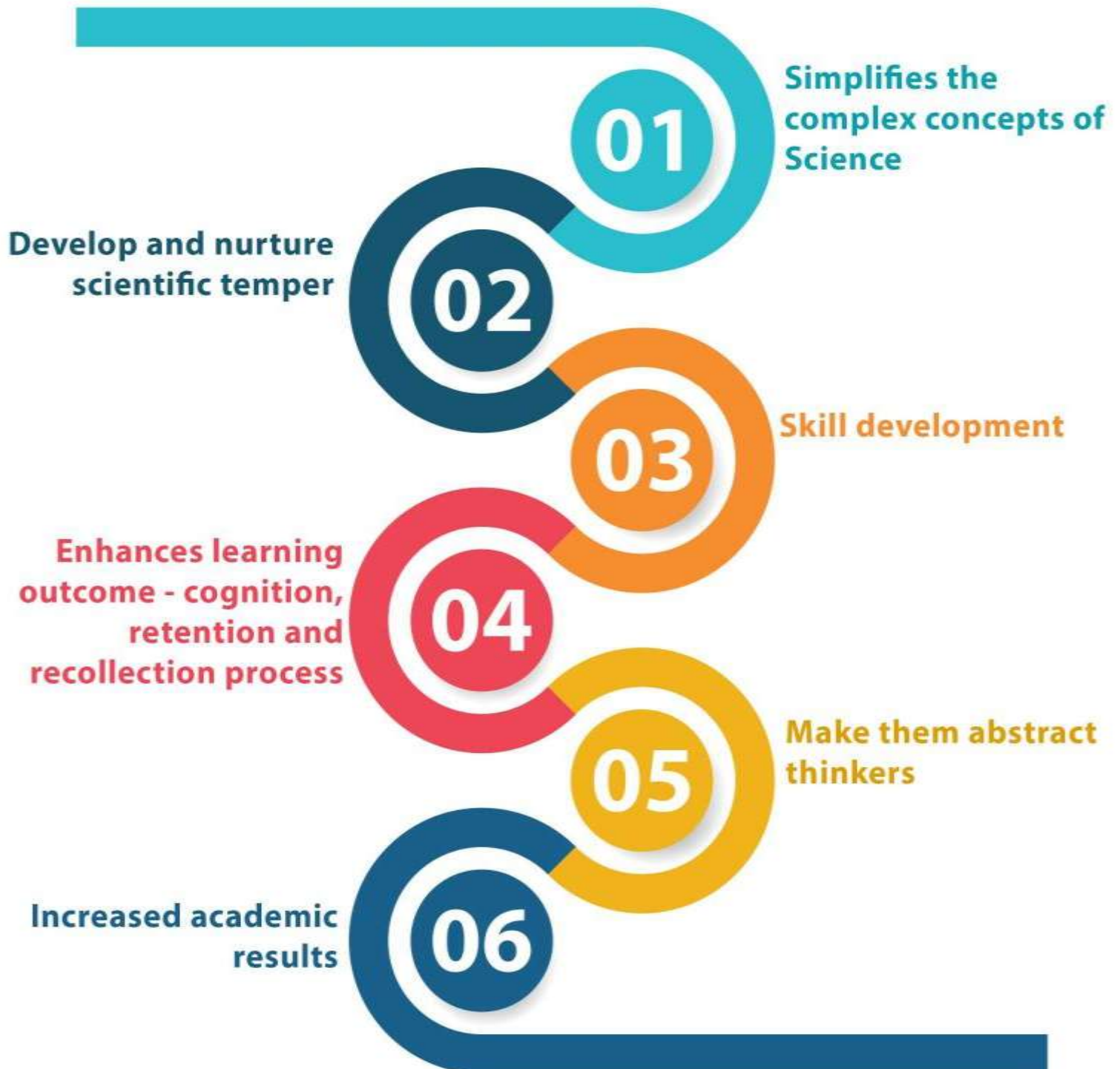
Our aim, at ScienceUtsav is to provide the right amount of ***'Conceptual understanding'*** in a fun filled manner so that when these students, enter the real world with strong basics are able to achieve great heights.

VISION

Our vision is to make learning an enriching and a blissful experience. We believe in strengthening the two wings of the children's innocent minds – ***inquisitiveness and imagination***, which helps them break the confines of the ordinary and take a leap into the whole new world full of different perspective.


Our aim is to make ScienceUtsav a creative program which will help children acquaint themselves to the concepts of science through research. This will enable them to fully appreciate the simplicity of the concepts while understanding the useful implementations and applications of the same.

THE SALIENT FEATURES AND BENEFITS OF SCIENCEUTSAV WORKSHOPS:



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SCIENCEUTSAV ON SOCIAL MEDIA

