

STEMland NEWSLETTER

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STEMland aims to build Responsibility and Rigor in children and generate results through mentoring of Mathematics through projects in Programming and leadership in action. In this newsletter, we capture the initiatives that have taken off with the Electronic Workshop and engagement with children in Vaasavi International School and Government Schools. This is a glimpse of the last three months of what STEMland delivered.



STEMland presents

HACKATHON WORKSHOP ON ELECTRONICS

Learn the Principles of Electronic and Critical components.



BOOK NOW

JAN 20-Sat

8.30 am - 5.30 pm

Venue : STEMland Udavi Campus-Edayanchavadi

EXCITING PRIZES!!!



Switch on your creativity in our electronic workshop.

Learning Outcomes:

- Estimate the energy consumed in everyday life.
- Design with resistors, LEDs, 7segment displays, sensors.

Registration Fees :Rs.100 mathegramming.com

Lunch is provided 6374934327-Dinesh

Last date to register : 18th January 2024

They explored in workshop

- Concept of Body resistance using conducting gel.
- Simple circuit using LED, Resistor, switch and battery.
- How to find the Breadboard connection using connectivity test in the multimeter
- With Multimeter how to measure the battery voltage, To check the working of LED,
- How the 7 segment display works and gave tasks which alphabet can't be displayed in the 7 segment

The STEMlandteam wants children to connect electronics to the world around them and relate electronics to the mathematics they have been learning.

We conducted the workshop for around 40 children and the children were from different schools. Our team mixed the children from different schools. So that children got different perspectives, encouraged working

Together, and increased their communication skills.

ELECTRONIC WORKSHOP



Then we dived into Electronics, by using the minimum mathematics of Multiplication and two hidden division stories. Using this simple idea, we introduced how to calculate power, current, Voltage, Charge, Energy. We also used only a few units for these that allows children to correlate between the quantities. We then applied this to our real life of understanding how much energy we consume. In time we analyzed how much energy would have been used to do the workshop itself on backup power and how much battery would have been used.



After the workshop came to an end, students shared their learnings and reflections in front of all the team members. Our STEMLandTeam realized that we added something useful to their life through the workshop, and we noticed the quality of care, full potential, and responsibility each of them displayed in that moment, bringing everyone happiness. Finally, we distributed the participant certificates to those who attended the workshop.



Empowering Students Through STEMLand: A Journey of Learning at Private and Govt Schools, Isai Ambalam and Udavi School

STEMLand team teach about math and programming in a way using pictures, Scratch programming, Materials and Electronics. Students in Edayanchavadi and Bommayapalayam Govt School are looking to create projects that help them deepen their understanding of each topic taken up in their classes.

Our team explored new games with the students in Edayanchavadi Government School. Students are very excited while playing these games. The best part was that the games made the students critical thinking and problem-solving in different ways. The STEMLand team found themselves inspired by the curiosity and enthusiasm of the students



To explore different games that not only made education enjoyable but also sparked new ways of

thinking for the students. The day at Edayanchavadi Govt School showed that when we mix education with fun, classrooms become happy places where everyone wants to explore and learn more. It was a day full of smiles and clever ideas!



This way of teaching math not only makes it more interesting but also helps students understand difficult ideas better by using computer code to show them visually. They can also share with friends what they have learned, which makes them feel responsible for their own learning.

STEMland Journey with Vasavi International School Students

The STEMland team worked with Vasavi International School students through new ways of looking at different concepts like Decimal Multiplication, Fraction, Integers, Algebra, and Simple Interest. In order to reduce the sense of overwhelmed, learning math visually using the Scratch program makes them feel responsible for their own learning.



In the normal way of teaching mathematical concepts students had felt overwhelmed and disconnected. Our STEMland team filled the gap by combining the principles of mathematics with the creativity and logic of programming. Through the collaborative efforts of the STEMland team, teaching math visually using the Scratch program to Vasavi students has become more effective and efficient.



Women's Engineering College Visits STEMland.

Women's Engineering College from Puducherry explored STEMland for Learning. The STEMland Team warmly welcomed them and explained what STEMland is all about and the importance of the ground rules.



It was a different experience interacting with college students when they visited our campus. Everyone noticed that they were responsible for guiding students to play STEM games and explaining how they enhance mathematical knowledge. The students were eagerly involved and learned from the games.



The STEMLand Team showed the college students how to teach STEM stuff to children in a fun way. After being given a deep explanation to students, we started to explore the games, materials, solving Puzzles and modules from scratch. The trip inspired them to explore innovative teaching methods, igniting their excitement to experiment with creative approaches that engage students, foster understanding, and enhance enjoyment of learning.



Connection to Startup Service Retreat Program at Auroville- Unity Pavilion

Our STEMLand Team participated in a new Startup Service retreat in Auroville (Unity Pavilion) on Friday - 8th December 2023. First, everyone shared their name and how they felt at that moment. After the session, Mr. Nipun Mehta explained various topics related to the Startup Program.



This program helps to turn our ideas for making a positive impact into reality. It brings together people from various backgrounds to start new projects and team up on fresh and exciting projects that are just starting. Collaboration brings our unique skills and ideas to the table, making these initiatives successful and impactful.

We wanted to work together to come up with new ideas that could make a positive impact. We were part of a team that consisted of people with different skills. We worked together to create a project that would make a difference. It was fun because everyone had cool ideas.



After each team came to the stage and explained their projects to the participants, one person took the pouch and collected feedback for the rest of the team members.



Home-schoolers children and their parents explore STEMLand on an exciting journey of learning and creativity.

A group of homeschoolers along with their parents visited STEMLand on Thursday - 28th December 2023 to explore new ways of learning. First we started the session with Stand and Fear, through stand they get to know who they are and what they deeply care about. And while doing fear they get to know about their socialized fears.

They did all sorts of exciting things like: Scratch programming, Electronics, Solving cast puzzles, Exploring Math materials, Games, Kirigami art and Mindstorms.



In the Scratch program, kids get to be really creative and have a lot of fun. They learn how to think in a different way and solve problems by making their own stories, games, and animations. Scratch helps them understand simple coding ideas like loops and sequences while having a great time.



The children and parents explored a few games in STEMLand like Azul, Dimension, sputnik and kabaleo. When they explore these games, they pick up skills like logical thinking and problem-solving and also they learn about patterns and strategies. These games teach them to work together and have fun as a team. So, while enjoying the game they end up picking up skills like strategy, creativity, and teamwork.



Kirigami Art: In the craftwork section, children and parents participated in crafting Kirigami balls. As they start to fold and cut, they also learn about shapes, symmetry, pattern and coordination. Kirigami helps them understand how different folds and cuts can turn a simple piece of paper into amazing 3D creations. It's like learning a special kind of art that combines creativity and a bit of paperwork.

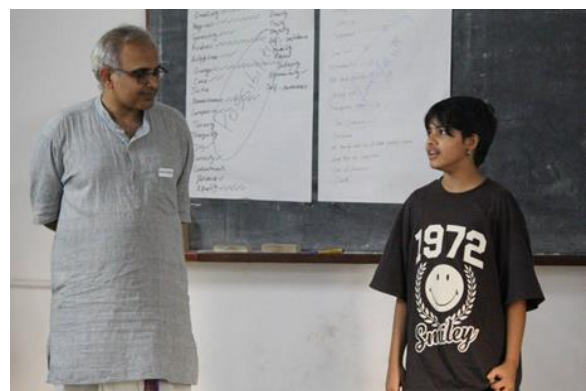


They started by painting their sheets and observing the connection between creativity and critical thinking. After finishing the Kirigami balls, they made everyone happy.



Rishi Valley School Journey into STEM Land

On 24th January 2024, there were 40 Students and Teachers from Rishi Valley School in Andhra Pradesh who came to visit STEM land. The STEMLandteam conducted a two-hour session with them. First, we started the session with Stand and Fear in “Radical Transformational Leadership”. Technology is value neutral and we talked about the values that we would like to embody when we use technology and also my socialized fear that does not support me being my full potential or embody my stand.



These sessions help to break our silos and work as a team in groups. Each student shared their name and qualities in different ways. Following the workshop, the children were asked to challenge themselves and take up something they had not done before and the

group explored various STEM activities. The students choose activities based on their interests.



Showing STEMland concept materials like Integers, diene blocks, and Algebraic Identities to children they can see how these concepts are related to everyday life. Teaching students makes a big positive impact and it helps them to think critically and problem-solving skills. This way of approach not only benefits the children's educational development but also makes collaborative learning with others.



In the electronics section, students were able to understand the uses of electronic devices, such as voltage, resistors, and current, along with a multimeter. They gained knowledge in drawing

circuit diagrams and calculating the daily consumption of current in their surroundings.



In the Mindstorm section, we had fun with robots. Step by step, we guided each other on how to build a simple robot, the connection of all the parts, and how to control our robots. It creates enthusiasm and joy in learning.



Contributions towards STEM land can be directed towards the Auroville Unity Fund

with a note for STEM land and mail it to

Dr. Sanjeev Ranganathan,
STEM land Udavi School, Auroville,
Edayanchavadi, Tamil Nadu – 605101
All donations are 100% tax-deductible in India.
www.C3streamland.com