

After-School Activities

After-School STEAM Tinkering Lab

Hands-on learning through creativity, design, and innovation

We are delighted to offer students the opportunity to join the STEAM Tinkering Lab — an after-school programme designed to ignite curiosity and develop essential 21st-century skills through engaging, hands-on projects.

What is the STEAM Tinkering Lab?

The Tinkering Lab combines Science, Technology, Engineering, Art, and Mathematics in fun, practical activities. Each session is designed to help children:

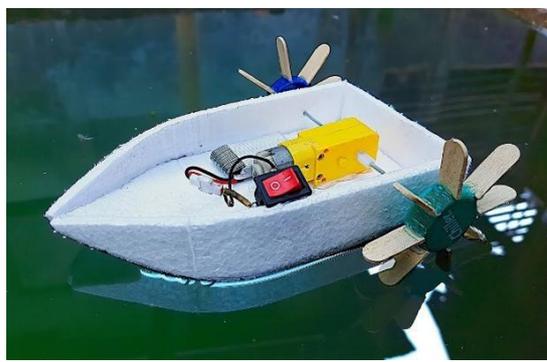
- Think like designers and engineers
- Explore scientific ideas through real-world experiments
- Develop creativity, teamwork, and problem-solving skills
- Gain confidence in building, coding, and creating

Programme Structure

To ensure age-appropriate learning, the programme is divided into two groups:

Tinker LAB CE1 to CM2 (Innovators):

- Focus on structured challenges, engineering, and introductory coding
- Sample projects:
 - Building and coding simple robots using micro: bit
 - Designing solar-powered models
 - Creating hydraulic machines using syringes and water
 - Engineering catapults and launchers to test physics in action



Learning Outcomes

By the end of the programme, students will have:

- ✓ Developed stronger problem-solving and critical-thinking skills
- ✓ Gained confidence in designing, testing, and improving their own creations
- ✓ Connected classroom learning to real-world applications
- ✓ Experienced the excitement of innovation and teamwork

Coding Lab (CE1 to CM2)

Learn to code, create, and think like a problem solver

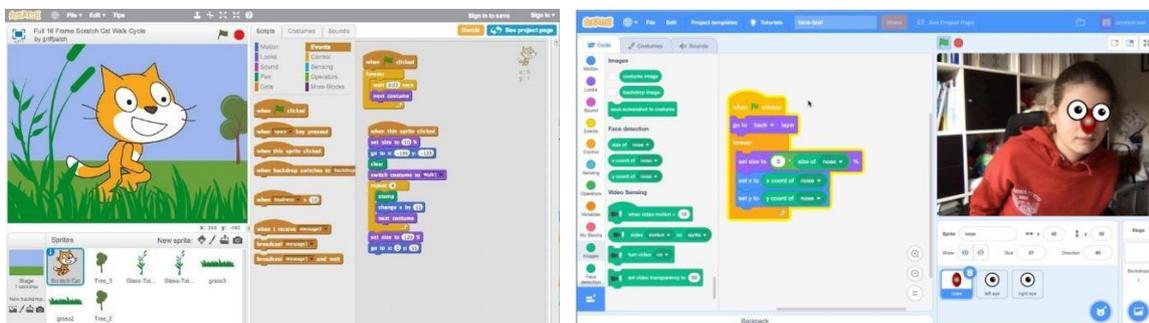
The Coding Lab introduces students in Grades 3–5 to the exciting world of programming using iPads. Through fun, interactive activities, students will explore how coding powers the apps, games, and technology they use every day.

What will students learn?

- Fundamentals of coding: logic, sequencing, loops, and variables
- Game and animation design using block-based coding
- App and story creation with interactive coding platforms
- An introduction to Artificial Intelligence and Machine Learning concepts (training simple image/sound recognizers)
- Problem-solving through coding challenges and mini-projects

Sample Projects

- **Build a game** where characters move, jump, and score points
- **Code an interactive story** with animations and dialogues
- **Train an AI model** to recognize images, emotions and commands
- **Control a virtual or physical robot** using iPad coding
- **Design digital art** powered by code



Learning Outcomes

- ✓ Understand the basics of computer programming
- ✓ Gain early exposure to AI and computational thinking
- ✓ Build creativity, resilience, and logical reasoning skills
- ✓ Develop confidence to solve problems and create projects independently

Science Experiments (CP to CM2)

Hands-on experiments and projects that spark curiosity and creativity

Program Overview

In this after-school programme, students become young scientists and engineers, exploring the wonders of science through fun, hands-on experiments and projects. Children will learn key STEAM concepts while building, experimenting, and discovering how the world works.

Each session combines creative problem-solving, observation, and hands-on construction to make learning exciting, interactive, and memorable.

Sample Activities

- Grass Heads – Learn about plant growth and responsibility by creating your own growing grass head.
- Solar-Powered Lunar Rover – Build a simple solar-powered rover and explore renewable energy and motion.
- Hand-Crank Generator – Discover how mechanical energy can be converted into electricity.
- Magnet Experiments – Explore magnetic forces, attraction, and repulsion through fun challenges.
- Mini Volcanoes & Fizzy Reactions – Investigate chemistry with safe, bubbly eruptions.
- Slime, Oobleck & Non-Newtonian Fluids – Hands-on exploration of chemistry and material science.



Learning Outcomes

- ✓ Develop critical thinking, observation, and problem-solving skills.
- ✓ Explore real-world science and engineering concepts through hands-on projects.
- ✓ Build confidence, teamwork, and creativity by completing experiments and taking home projects.
- ✓ Connect scientific principles to everyday life in a fun, engaging way.

Scent Making (CP to CM2)

Science meets creativity through the art of fragrance

Program Overview

In this engaging after-school program, students will explore the fascinating world of scent-making and product design. Guided by expert facilitators, children will experiment with safe, natural ingredients to create their own candles, soaps, perfumes, air fresheners, and bath bombs. Each session combines scientific discovery with hands-on creativity, giving students the opportunity to design, mix, and take home their very own scented creations.

Sample Activities

- **Perfume Blending** – Mix essential oils to design a unique personal fragrance.
- **Candle Making** – Experiment with colors and scents to create mood candles.
- **Bath Bomb Lab** – Explore fizzing reactions while crafting bath bombs.
- **Soap Studio** – Learn about melting, molding, and scenting soap bases.
- **Air Freshener Design** – Create eco-friendly room fresheners with natural oils.



Learning Outcomes

- ✓ Understand basic chemistry behind fizzing, melting, and scent diffusion.
- ✓ Develop measurement, mixing, and experimentation skills.
- ✓ Strengthen creativity and design-thinking by customizing products.
- ✓ Gain awareness of sustainability and natural ingredient use.
- ✓ Build confidence and pride through take-home creations to share with family.