

# STEAM

Science • Technology • Engineering • Arts • Mathematics

*The most valuable companies today such as Apple and Google are technology driven. Successful leaders like Steve Jobs of Apple, Bill Gates of Microsoft and Mark Zuckerberg of Facebook were exposed to technology very early in life, before their imaginations and mind-sets were coloured by conventional thinking.*

**EdnoLand STEAM** is a state-of-the-art programme that exposes your child to **STEAM (Science, Technology, Engineering, Arts and Mathematics)** and **innovation** in fun and age-appropriate ways to prepare him/her with the essential **future-skills** for success.

*Your child will experience hands-on exciting activities in our EdnoLand STEAM programme over 3 years.*

## Living Things

- Explore and learn about the basic characteristics of living things
- Learn that DNA is the instruction manual of all living things
- Learn how to extract DNA from a tomato
- Explore and learn about the basic patterns of fingerprints



Extracting DNA



Investigating Fingerprints

## Coding and Robotics

- Develop critical thinking and problem-solving skills
- Develop computational thinking (algorithm, pattern recognition, abstraction, decomposition)
- Take thoughtful risks and engage in experiential learning
- Collaborate with others and work through the creative process



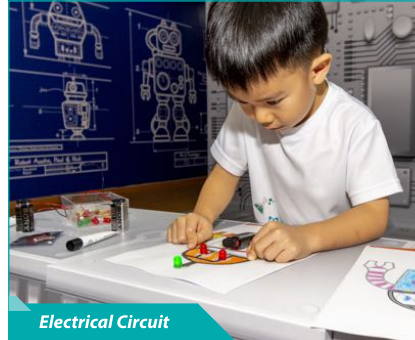
Robotics



Coding

## Electrical Circuit

- Machines and Electricity
  - Explore and learn about machines and electricity
- What is an Electrical Circuit?
  - Explore and learn about electrical circuits
  - Learn to use basic parts to form a simple electrical circuit
- Playdough Circuits
  - Explore and learn about conductors and insulators
  - Use creativity to create sculptures that light up



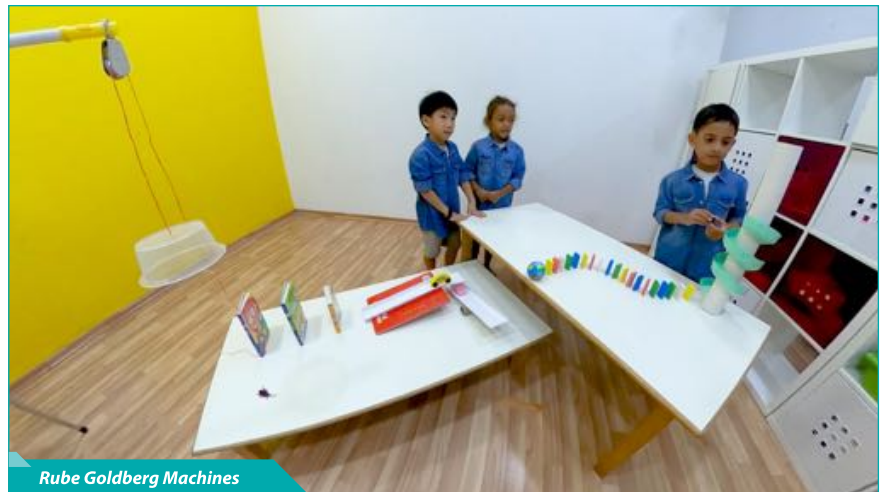
Electrical Circuit



Playdough Circuits

## Simple and Compound Machines

- Explore the characteristics and uses of a simple machine (such as pulley, wheel and axle, lever etc.)
- Learn about compound machines (such as a robot or a car) and identify the various simple machines within the compound machines
- Explore setting up different Rube Goldberg Machines to experience failure and success through trial-and-error, an important lesson in innovation.
- Develop creativity in the process



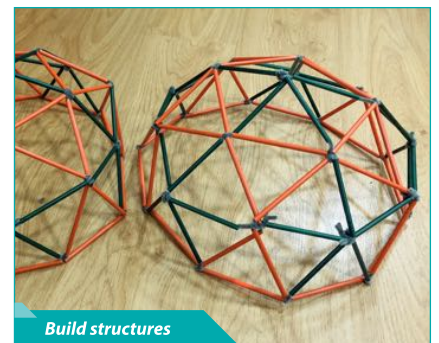
Rube Goldberg Machines

## Amazing Structures

- Build structures using varying materials
- Understand basic laws of physics
- Construct creatively and innovatively
- Engage in design thinking
- Make observations about materials and compare / contrast them



Build structures



Build structures

For enquiries, please call: **9635 6767**



**EDNOVATION**