



# STEAM EXPLORERS

5 – 6 Years Old

10 Jul – 28 Aug 2025, Thursday,  
4:00pm – 5:00pm

Explorers will create, experiment, and engineer with different projects. Building on the foundation of STEM topics, our curriculum integrates new topics such as Sustainability, AI and robotics.

## PROGRAM OBJECTIVES



Build up **knowledge and gain exposure** in disciplines of **Science, Engineering, and Technology**







Explore and **connect knowledge** in **meaningful ways** through our proprietary **STEAM interdisciplinary approach**






Learn through fun **hands-on and interactive activities, experiments, and craft projects**

## PROJECTS INCLUDE:

### Forces and Interactions

-  Magnet Explorers: Magnetic or Not?
-  Magnetic Push & Pull: Magnet Cars
-  Gravity: Air Resistance
-  Balancing Act: Centre of Gravity

### Simple Machines

-  Pulley System
-  Wheels & Axle
-  Infinity Loop – Möbius Strip Exploration

\*PROGRAMME OUTLINE IS SUBJECTED TO CHANGES DUE TO UNFORESEEN CIRCUMSTANCES



[www.explorerjunior.com](http://www.explorerjunior.com)



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## PROGRAM OUTLINE

### WEEK 1

#### Magnet Explorers: Magnetic or Not?

Which everyday things are magnetic? Find out with magnet sticks and a super fun fishing game! Discover how magnets attract and learn to classify different materials.

### WEEK 2

#### Magnetic Push & Pull: Magnet Cars

Discover how magnets can both attract and repel through a hands-on demonstration of magnetic poles! Create and race magnet-powered car, observing how repulsion moves objects.

### WEEK 3

#### Gravity: Air Resistance

Compare how a helicopter pinwheel and a flat paper fall through the air. Explore how air resistance slows objects down, connecting to real-life examples like parachutes and leaves falling.

### WEEK 4

#### Balancing Act: Centre of Gravity

Build a balancing paper robot on a stick! Discover how the position of weight affects balance and stability, just like playground equipment and incredible circus tightrope walkers.

### WEEK 5

#### Simple Machines: Pulley I

Discover how pulley make lifting heavy things feel light. Create a simple pulley to lift a paper robot, observing how effort is reduced with this simple machine.

### WEEK 6

#### Simple Machines: Pulley II

Learn how pulley make tasks easier and see how they're used all around us by constructing a working flagpole to raise and lower a paper flag!

### WEEK 7

#### Simple Machines: Wheels & Axle

Engineer a simple cardboard car using wheels and axles. Through this activity, discover how wheels reduce friction, making it easier to move heavy objects across surfaces.

### WEEK 8

#### Infinity Loop – Möbius Strip Exploration

Create a Möbius Strip and discover the surprising secret of a loop that never ends while exploring patterns, continuous paths, and simple geometry concepts.

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