AEROBAY
Empowered by Innovation

The Journey To Space

SESSION 1

A Universal Intro!

Explore how our the Solar System is placed within the Universe. Together we will define some celestial terms like sun, dwarf planet, comets and many more. Explore how the planets interact with the Sun. Pssst- we'll speak about Galileo as well!

SESSION 2

Sketchy Affairs

Explore the basics of sketching. You don't even need to know how to sketch, we'll make it that easy. We teach you a really easy-to-use and really cool 2D sketching software so your ideas can take shape.

SESSION 3-4

Explore The 3rd Dimension

Take your idea from 2D to 3D and explore how it looks from every angle.

SESSION 5-6

Engineering Design Process

STEAM provides the basics to complete a series of hands-on tasks with engineering design process, while Kolb's model helps spread and develop tasks using micro-activities. This is some serious fun.

SESSION 7-9

"Pi In tha sky

This visual math problem set, students a chance to try using the mathematical constant pi on some of the real calculations space explorers use every day. a chance to see some of the exciting, real-world applications of the math they're learning in school."

SESSION 10 –12

Delta Wing-it With Natural Inspiration

Learn about the functions and forces regarding wing design. See how birds' wings work and why they inspired inventors to create successful flights of all kinds. Explore various aircraft wing shapes and finally, calculate some basic wing parameters.
Kit Included - RC Plane

SESSION 13 –15

Weather and Climate Introduction

Understand the differences between weather and climate. From the freezing Arctic to the blazing deserts , see how long-term weather measurement relates to climate change.

SESSION 16-17

Earth and Mars: An Atmospheric perspective

Explore how the Red Planet (Mars) compares to Earth's very own breathable atmosphere. Get curious about the Curiosity rover on Mars and future missions to the Red Planet by ISRO, NASA and SpaceX.

SESSION 18 –20

Landing on Mars

Take part in a hands-on activity that demonstrates how the atmosphere can be used to slow down a landing body. Design, build and land your own Mars Rover!
Kit Included - Mars Rover Kit

SESSION 21-23

It's A Clean Machine!

Make your move by understanding how various parts come together to make a machine. Then use your learnings to design and build your first machine. Let's get moving!
Kit Included - Wooden Crane Kit

SESSION 24-26

Solar System & Our universe

Together let's unravel the wonderful mysteries of the universe- What is space? How has our solar system evolved since the Big Bang? Do we have neighbours outside of Earth?
Kit Included - Solar System kit

SESSION 25-28

Mission: Humankind In Space

Let's have an adventure of our own! You would be in-charge of your own Space Mission- learn to analyse and solve problems from designing and testing to funding the mission.

SESSION 29-30

It's Time To Suit Up

What makes the space suit work? How do astronauts survive with zero gravity inside space suits? We also explore a brief history of space walks.
Kit Included - Space Suit

SESSION 31-34

Life at the International Space Station

Having floating water droplets, fixing huge parts with space walks - there's so much to do at the ISS! We explore its design, structure and importance in supporting global missions. A surprise Math Puzzle awaits you at the end!

SESSION 36-36

Rocket Launcher

Ready? Set? Boost! We launch into rocket science and explain the some wonderful ways to design rockets and analyse streams of data. After all, it's all in the numbers.
Kit Included - Rocket Launcher Kit

SESSION 37-38

Astrobiology - Life in the Universe

What makes Earth so special? How does it support life? Is there life beyond our atmosphere? There's a lot of fascination, mystery and myth-breaking facts here!

SESSION 39-41

Get Right With The Satellite

It's the thing that makes possible the broadcast of signals from millions of miles away, and it always orbits around Earth! Explore how satellites help in tracking weather changes and in communication between space-crafts.

SESSION 42-44

Hands On With A Satellite

Apply your basic learnings from the previous session to design and build your very own Satellite.
Kit Included - Mini Satellite

SESSION 45-46

IOST - Internet of Satellite Things

Learn how interconnected parts communicate with each other to make awesome stuff happen. It's all in the connection!

SESSION 47-49

Code Name: Python

Get whacking away on those keys and learn how to generate codes, program a satellite and make awesome mathematical models.

SESSION 49-50

Incoming: Satellite to PC

Now that you have developed models of satellites and basic codes, it's time to patch things up between the satellite and your PC. Let the talks begin!

SESSION 51-52

It's All Wire-y Here!

Harness the power behind electrical connections to truly transmit signals, besides playing with a Printed Circuit Board!

SESSION 53-55

Get That CEO Hat!

Design a new Rocket Company with a creative new rocket, its payload capacities and logo design.

SESSION 56-58

Space Mathematics

Students use an image from IRIS to examine the sizes and equivalent energy of bright spots in the solar transition region. Together we define terms like: percentage; proportion; scale; scientific notation; volume of a cylinder.

SESSION 59-60

Final assignment