

Rove Downtown

Easter Camp - Junior STEM and Robotics

Week 1 - March 28th to April 1st

Date	STEM (Defying Gravity, or is it?)	Robotics (WeDo 2.0)
28/03/22	<p style="text-align: center;">Walking Paper Horse</p> <p style="text-align: center;">Design and create a paper structure that mimics a walking mechanism</p>	<p style="text-align: center;">Moving Satellite</p> <p style="text-align: center;">Design, build and code a satellite; design and build a skater that uses similar mechanism</p>
29/03/22	<p style="text-align: center;">Balancing Bird</p> <p style="text-align: center;">Explore the centre of gravity of objects with this seemingly magical activity</p>	<p style="text-align: center;">Windmill</p> <p style="text-align: center;">Design and build a windmill that works on gear mechanism</p>
30/03/22	<p style="text-align: center;">Marble Run</p> <p style="text-align: center;">Design and create a track for a marble that works on gravitational pull.</p>	<p style="text-align: center;">Aeroplane</p> <p style="text-align: center;">Design, build and code an aeroplane that works on a joystick made from tilt sensor</p>
31/03/22	<p style="text-align: center;">Defying gravity with magnet</p> <p style="text-align: center;">Using magnets create a force on objects that will oppose the gravitational pull</p>	<p style="text-align: center;">Mine Railway</p> <p style="text-align: center;">Design a track and mine rail that is controlled by tilt sensor joystick</p>
01/04/22	<p style="text-align: center;">Weighted Catapult</p> <p style="text-align: center;">Design a catapult that works on gravitational potential energy</p>	<p style="text-align: center;">Smart Recycle Bin</p> <p style="text-align: center;">Design, create and build a recycle bin that opens when it detects an object</p>

Week 2 - April 4th to April 8th

Date	STEM (Light and Shadows)	Drones
04/04/22	<p style="text-align: center;">Fun with Shadows</p> <p>With this fun experiment, explore how shadows are affected by the angle and intensity of light</p>	<p style="text-align: center;">Angry Man</p> <p>Explore the working of propellers with this fun activity</p>
05/04/22	<p style="text-align: center;">Shadow Puppets</p> <p>Design a shadow puppet for a shadow theatre. Create puppets using opaque, transparent and translucent materials</p>	<p style="text-align: center;">Propeller Car</p> <p>Design and create a car that is powered by propellers. Explore how the direction of propellers affect the movement of the car</p>
06/04/22	<p style="text-align: center;">Shadow Art</p> <p>Learn how to play with light to create a shadow art with simple items</p>	<p style="text-align: center;">Hovercraft</p> <p>Using the propellers, design a vehicle that hovers on the land. Manoeuvre it to move around the given path</p>
07/04/22	<p style="text-align: center;">Spectroscope</p> <p>Light experiments are fun when they involve rainbows! Discover spectral patterns of different light sources</p>	<p style="text-align: center;">Drones</p> <p>Explore the working, propulsion system and motion of the drones</p>
08/04/22	<p style="text-align: center;">Kaleidoscope</p> <p>Explore how reflections from one mirror into another mirror create beautiful patterns</p>	<p style="text-align: center;">Air Manoeuvres</p> <p>Experiment different stunts in air with drones</p>