

Session No	Topic	Learning Outcome
1	Introduction to STEM	Understand what STEM is and how robotics fits into daily life
2	Balloon Car	Learn basic motion and force using air pressure
3	Magnetic Car	Understand magnetism and simple vehicle movement
4	Electricity Basics	Identify electricity flow using battery, LED, and buzzer
5	Simple Circuit	Build a simple circuit using battery and components
6	Push Button & Slide Switch	Control circuits using switches
7	Introduction to PCB	Understand what PCB is and where it is used
8	Torch Model using PCB	Build a working torch using PCB
9	PCB Hut Model	Apply PCB knowledge in a creative model
10	Fan Model	Understand motor usage and rotation
11	Doodle Bot	Create a simple robot using vibration
12	Ropeway Model	Understand pulley and mechanical motion
13	Air Maze	Explore air pressure and path planning
14	Vacuum Cleaner Model	Understand suction and airflow
15	Water Dispenser Model	Learn liquid flow and pump basics
16	Mid-Term Test	Assess understanding of basic electronics and models
17	Introduction to mBlock	Understand block-based coding interface
18	Coding Structure	Learn sequence, loop, and logic blocks
19	Animation & Transition	Create simple animations using code
20	Game Development	Build a simple game using mBlock
21	Introduction to Arduino Nano	Understand microcontroller basics
22	LED ON/OFF using Arduino	Control LED using Arduino code
23	Home Automation using mBlock	Control devices using coding
24	Touch Sensor Introduction	Read sensor values and understand input
25	Touch Sensor Activity	Use touch sensor in real-time application
26	Dodge the Hurdle Game	Create an interactive game using sensor input
27	LDR & IR Sensor	Understand light and object detection
28	Moisture Sensor with Pump	Automate watering using sensor input
29	Seven Segment Display	Display numbers using electronics
30	Soccer Bot & Year End Project	Build and demonstrate a complete robotics project