

Session No	Topic	Learning Outcome
1	STEM Kit – Components Name	Identify STEM kit parts and understand basic safety
2	Spinner / Glowing Snail	Understand rotation and glowing effect
3	Electronic Spinner	Learn powered rotation and cause–effect
4	Sweeper	Understand continuous motion and cleaning mechanism
5	Fish Mechanism	Learn oscillating motion
6	Floodgate	Understand open-close mechanism and control
7	Earthquake Simulator / Crank	Learn crank mechanism and vibrations
8	Tadpole / Frog	Understand jumping motion
9	Fish / Flex	Learn flexible movement and linkage
10	Spirograph	Understand patterns and circular motion
11	Intro to Sensor / Spy Robot	Learn basic sensors and detection
12	Turbo Fan	Understand speed and airflow
13	Rover Using Sensors	Learn obstacle detection and movement
14	Drilling Machine	Understand rotation and torque
15	Speedster Car	Learn speed and wheel alignment
16	Intro to Sensor / Joystick	Understand manual control using joystick
17	Self-Driving Car	Learn automated movement using sensors
18	Acrobatic Robot	Understand balance and movement
19	Forklift Using Tilt Sensor	Learn tilt sensing and lifting action
20	Super Goalkeeper with Sensors	Understand reaction-based motion
21	Test – STEM & Robotics	Assess understanding of mechanisms and sensors
22	Introduction to Scratch	Understand coding interface and blocks
23	Coding Structure	Learn sequence and flow of code
24	Conversation Between 2 Sprites	Create interaction between sprites
25	Falling Letters Game	Understand gravity-like motion and timing
26	Animation	Learn frames, scenes, and storytelling
27	Make the Sprites Speak	Use sound and speech blocks
28	Conditional Statement / Ping Pong Game	Learn conditions and decision making
29	Test – Coding	Assess coding and logic skills
30	Year-End Project	Build sensor-based robot or Scratch game