

LS Creative Learnings Pvt Ltd.,

STEM-Robotics Education

Report for June 2018

S B Patil Public School, Pune

Grade: I

June 2018

First week

Topic	Community helpers
Lesson Objective	To make the children know about Community helpers and how they help us.
Robotic Kits used	Early Simple Machine(ESM)kit
Activities	Build model of Postbox
Concept Integrated	General Science(community helpers).

Second Week

Topic	Community helpers
Lesson Objective	To make the children know about Community helpers and how they help us.
Robotic Kits used	Early Simple Machine(ESM)kit
Activities	Build model of First Aid Box
Concept Integrated	General Science(community helpers).

Third week

Topic	Community helpers
Lesson Objective	To make the children know about Community helpers and how they help us.
Robotic Kits used	Early Simple Machine(ESM)kit
Activities	Build model of Fire Brigade Van
Concept Integrated	General Science(community helpers).

Fourth week

Topic	Living things
Lesson Objective	To make the children aware of different things around us which include living things.
Robotic Kits used	Early Simple Machine(ESM)kit
Activities	Build model of Man, Animal, Tree for Living things
Concept Integrated	General Science(Living and Non-living things).

Grade: II

June 2018

First week

Topic	Community helpers
Lesson Objective	To make the children know about Community helpers and how they help us.
Robotic Kits used	Early Simple Machine(ESM)kit
Activities	Build model of Postbox
Concept Integrated	General Science(community helpers).

Second Week

Topic	Community helpers
Lesson Objective	To make the children know about Community helpers and how they help us.
Robotic Kits used	Early Simple Machine(ESM)kit
Activities	Build model of First Aid Box
Concept Integrated	General Science(community helpers).

Third week

Topic	Community helpers
Lesson Objective	To make the children know about Community helpers and how they help us.
Robotic Kits used	Early Simple Machine(ESM)kit
Activities	Build model of Fire Brigade Van
Concept Integrated	General Science(community helpers).

Fourth week

Topic	Living things
Lesson Objective	To make the children aware of different things around us which include living things.
Robotic Kits used	Early Simple Machine(ESM)kit
Activities	Build model of Man, Animal, Tree for Living things
Concept Integrated	General Science(Living and Non-living things).

Grade: III

JUNE 2018

First week

Topic	Tower
Lesson Objective	To understand the concept of balancing, strength, base .
Robotic Kits used	Science & Technology (S & T) Kit.
Activities	Build a model of tower
Concept integrated	Interlocking and overlapping.

Second Week

Topic	Shapes
Lesson Objective	To understand the concept of shapes
Robotic Kits used	Science & Technology (S & T) Kit
Activities	Build different shapes like triangle, square, rectangle.
Concept Integrated	Geometrical shapes (Math)

Third week

Topic	Transportation – Car
Lesson Objective	To observe daily life, understand daily life; understand different modes of transportation - road ways- four wheeler
Robotic Kits used	Science & Technology (S & T) Kit.
Activities	Build a model of car make to move forward.
Concept Integrated	Modes of transportation

Fourth week

Topic	Bridge
Lesson Objective	To understand the concept of Strength, tall, short, pillars and height of the Bridge
Robotic Kits used	Science & Technology (S & T) Kit.
Activities	Build the model of bridge.
Concept integrated	

Grade: IV

JUNE 2018

First week

Topic	Wind mill
Lesson Objective	To understand the concept of wind
Robotic Kits used	Science & Technology kit
Activities	Build the model of wind mill
Integration	Science : Wind Energy.

Second Week

Topic	Hand fan
Lesson Objective	To understand the mechanism of gears in hand fan.
Robotic Kits used	Science and technology kit
Activities	Build the model of Hand fan
Integration	Simple machine-gears.Changes in speed of fan using gearing up and down mechanism

Third week

Topic	Cheering Fans
Lesson Objective	To understand the mechanism of gears and motors.
Robotic Kits used	Science & Technology (S & T) Kit.
Activities	Build the model of Cheering fans
Concept Integrated	Simple machine pulley(Science) .

Fourth week

Topic	Lego Grinder
Lesson Objective	To understand about uses and features of gears.
Robotic Kits used	Science & Technology (S & T) Kit.
Activities	Build a model of Lego grinder
Concept Integrated	

Grade: V

June 2018

First week

Topic	Crane Simple Machine-Pulley
Lesson Objective	To understand the use of pulley.
Robotic Kits used	LEGO-Wedo kit
Activities	To build the model of crane.
Concept Integrated	Simple machine-pulley

Second Week

Topic	Escaletter Simple Machine-Inclined Plane
Lesson Objective	To understand the use of inclined plane
Robotic Kits used	LEGO-Wedo kit
Activities	To build the model of escaletter.
Concept Integrated	Simple Machine –Inclined plane

Third week

Topic	Gear Mechanism
Lesson Objective	To understand concept of gears.
Robotic Kits used	Lego WeDo Kit
Activities	Build the model of table fan using gears.
Concept Integrated	-

Fourth week

Topic	Crane using gears
Lesson Objective	To understand use of gears.
Robotic Kits used	Lego Wedo Kit
Activities	Build model of crane.
Concept Integrated	-

Grade: VI

June 2017

First week

Topic	Cheerful fans
Lesson Objective	To get familiarize to use parts in wedo kit like pulleys and gears.
Robotic Kits used	Lego WEDO Kit
Activities	To build the model of cheerful fans
Concept Integrated	Cam Gear mechanism

Second Week

Topic	Flying Birds
Lesson Objective	To learn concept of gear mechanism.
Robotic Kits used	Lego WEDO kit
Activities	To build the model of Flying birds.
Concept Integrated	Cam Gear mechanism

Third week

Topic	Introduction to gear box
Lesson Objective	To learn the concept of gear box.
Robotic Kits used	Lego WeDo Kit
Activities	To build the model of Crane.
Concept integrated	Speed change(Science)

Fourth week

Topic	Swing
Lesson Objective	Students will run to and fro motion.
Robotic Kits used	Lego Wedo Kit
Activities	To build the model of Swing.
Learning Outcome	To and fro motion (Science)

Grade: VII

June 2017

First week

Topic	Sensors – Ultrasonic
Lesson Objective	To understand the concept of sensors and attach different types of sensors to the drive base using NXT .
Robotic Kits used	NXT Mindstorm
Activities	Attach the Ultrasonic sensor to the NXT Drive base.
Learning Outcome	Students learn a concept of reflection, refraction , emitter, receiver, etc. and characteristics of ultrasonic sensor.

Second Week

Topic	Sensors – Ultrasonic
Lesson Objective	To understand the concept of sensors and attach different types of sensors to the drive base using NXT
Robotic Kits used	NXT Mindstorm
Activities	Attach the Ultrasonic sensor to the NXT Drive base.
Learning Outcome	Students learn a concept of reflection, refraction , emitter, receiver, etc. and characteristics of ultrasonic sensor.

Third week

Topic	Sensor – Light
Lesson Objective	To understand the concept of sensors and attach different types of sensors to the drive base using NXT
Robotic Kits used	NXT Mindstorm
Activities	Attach the Light sensor to the NXT Drive base.
Learning Outcome	Students learn a concept of Intensity of diff colors and characteristics of light sensor.

Forth week

Topic	Sensor – Light
Lesson Objective	To understand the concept of sensors and attach different types of sensors to the drive base using NXT
Robotic Kits used	NXT Mindstorm
Activities	Attach the Light sensor to the NXT Drive base.
Learning Outcome	Students learn a concept of Intensity of diff colors and characteristics of light sensor.

Grade: VIII

June 2018

First week

Topic	Line Tracing
Lesson Objective	Understand how to program the robot for following a black line
Robotic Kits used	NXT Mindstorm
Activities	Students have to build a model using light sensor and program it to follow black line
Concept integrated	Light(science chpt 16)

Second Week

Topic	Line Tracing
Lesson Objective	Understand how to program the robot for following a black line
Robotic Kits used	NXT Mindstorm
Activities	Students have to build a model using light sensor and program it to follow black line
Concept integrated	Light(science chpt 16)

Third week

Topic	How to avoid the obstacle on the dark line and follow the dark line
Lesson Objective	understand how to follow a dark line, avoid obstacle on the dark line by going around it and again follow the dark line.
Robotic Kits used	NXT Mindstorm
Activities	Attach the Light sensor and ultrasonic sensor to the NXT Drive base.
Concept integrated	Light(science chpt 16)

Fourth week

Topic	How to avoid the obstacle on the dark line and follow the dark line
Lesson Objective	understand how to follow a dark line, avoid obstacle on the dark line by going around it and again follow the dark line.
Robotic Kits used	NXT Mindstorm
Activities	Attach the Light sensor and ultrasonic sensor to the NXT Drive base.
Concept integrated	Light(science chpt 16)