

# EDUCATOR SET VERSION 2.0

## Order Code - STEM-128 TO STEM-130

### Educator Set V2.0

#### Features

- Educator Set is a One-Stop Solution.
- This one set covers every project from Grade 1 to Grade 8.
- This includes construction set, junior electronics set, Logic blocks, Discovering Electricity, Boffin-controlled based kit, Discovering electronics - with different ICs and other accessories set.
- The above kit comes with Grade wise manuals with 30 chapters each.










#### This includes





#### BOX-1

- Logic Blocks \* (2)
- E-Circuits \* (2)
- Junior Electronics \* (2)

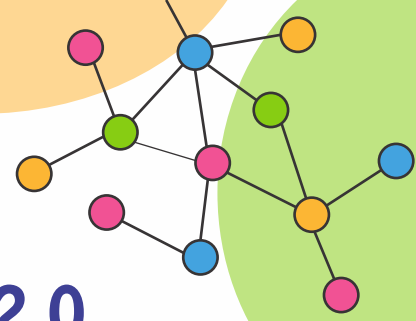
#### Logic Blocks (2) + E-Circuits (2) + Junior electronics (2)

S.NO	Pieces Name	Picture	Quantity
1	Power Block		1
2	Motor Block		2
3	Distance Block		2
4	IR Block		2
5	Buzzer Block		1
6	Not Block		1
7	LED Block		1
8	Wire		2
9	Switch Block		1

1	Push Button		3
2	Green LED		1
3	Red LED		2
4	Buzzer		1
5	Slide Switch		1
6	Capacitor		2
7	10k ohm		1

S.NO	Pieces Name	Picture	Quantity
8	20k ohm		1
9	3.3k ohm		1
10	Potentiometer		1
11	LDR		1
12	Motor		1
13	Red Alligator Clips		1
14	Black Alligator Clips		1
15	Jumper wire		2
16	Battery Box		1
17	Connecting Tower		6
18	Rainbow disk		1

1	Queaky		1
2	Wire		1
3	Thread		1



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## Order Code - STEM-128 TO STEM-130

**This Includes**

**Box-2**

- Marble Stem \* (1)

### MARBLE STEM (1)

S.NO	Pieces Name	Picture	Quantity
1	MRS14 (Straight)		8
2	MRH5 (Slope)		6
3	MRB7 (Curve)		12

S.NO	Pieces Name	Picture	Quantity
1	P-3		25
2	P3C2		62
3	CT(1*2)		4
4	TW-2		44
5	MARBLES		10
6	Buckets		10
7	Paper Strips		3
8	Rubber Band		1
9	Wheel Without Tyre		1

S.NO	Pieces Name	Picture	Quantity
1	Power IC		1
2	555 IC		1
3	IC 7408		1
4	IC 7432		1
5	IC 7404		1
6	IC 7400		1
7	IC 7402		1
8	IC 7486		1
9	IC 7426		1
10	Multiplexer		1
11	Demux		1
12	7 segment display		1
13	Wire		40
14	LED		2
15	Resistor (1k , 10k)		2

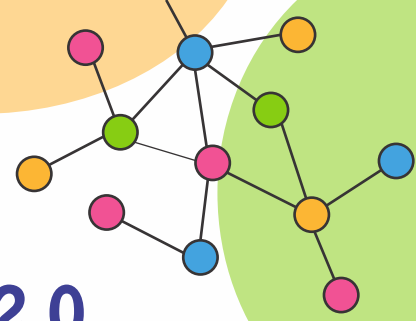
16	Capacitors		2
17	Potentiometer		1
18	P21*21		1

S.NO	Pieces Name	Picture	Quantity
1	IR Sensor		2
2	ESP -32 Board		1
3	Limit Switch		1
4	DC motor board		2
5	LED		1
6	Programming Cable		1
7	Wires		6
8	Servo Motor		1

**This Includes**

**Box-3**

- Discovering Electronics \* (2)
- Boffin Basic \*



# EDUCATOR SET VERSION 2.0

## Order Code - STEM-128 TO STEM-130

### This Includes

#### Box-4

- Construction Set X \* (1)
- Construction Set Y \* (1)

S.NO	Pieces Name	Picture	Quantity
1	TW1		25+5
2	CT2		40+10
3	CL2		15+5
4	CH2		20+12
5	CT3		30+0
6	CT(1X2)		2+2
7	P3		12+0
8	P5		18+0
9	P7		10+2
10	P11		12+4
11	P3 plus		4+2
12	PC3		4+4
13	P5 NUT + Power Screw		1
14	G20 PLUS		4+2
15	G20 IDLER		3+3

S.NO	Pieces Name	Picture	Quantity
16	G60		3+0
17	SH60		2+2
18	SH100		3+2
19	SH 170		2+2
20	Rack		3+7
21	Remover Tool		1+0
22	MudGuard Left		2+1
23	MudGuard Right		2+1
24	Steering Wheel		1+0
25	Spoiler		1+0
26	Suspension		2+2
27	PU5X 7		0+5
28	PU5X13		0+8

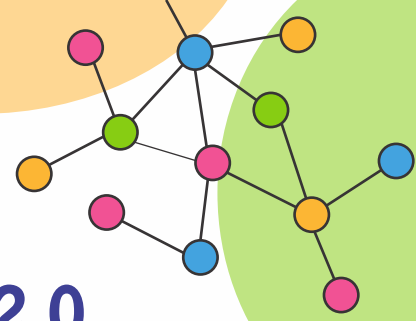
S.NO	Pieces Name	Picture	Quantity
1	TW1		25+5
2	CT2		40+10
3	CL2		15+5
4	CH2		20+12
5	CT3		30+0
6	CT(1X2)		2+2
7	P3		12+0
8	P5		18+0
9	P7		10+2
10	P11		12+4
11	P3 plus		4+2
12	PC3		4+4
13	P5 NUT + Power Screw		1
14	G20 PLUS		4+2
15	G20 IDLER		3+3

S.NO	Pieces Name	Picture	Quantity
16	G60		3+0
17	SH60		2+2
18	SH100		3+2
19	SH 170		2+2
20	Rack		3+7
21	Remover Tool		1+0
22	MudGuard Left		2+1
23	MudGuard Right		2+1
24	Steering Wheel		1+0
25	Spoiler		1+0
26	Suspension		2+2
27	PU5X 7		0+5
28	PU5X13		0+8

### This Includes

#### Box-5

- Construction Set X \* (1)
- Construction Set Y \* (1)



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## Order Code - STEM-128 TO STEM-130

S.NO	Pieces Name	Picture	Quantity
1	Band		2
2	Foam		2
3	Fan		2
4	Iron nail		2
5	Bar Magnets		2
6	Donut Magnets		3
7	Sand paper		1

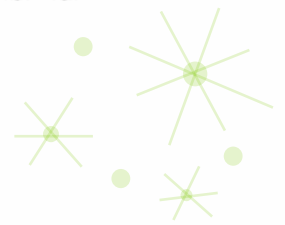
8	Straw		2
9	Balloon		2
10	Chart Paper		1
11	Copper Wire		2
12	Black tape		1
13	Mechanix Screw Driver		1

S.NO	Pieces Name	Picture	Quantity
1	3 Volts Battery Box		2
2	6 Volts Battery Box		2
3	DC Gearbox		4

### This Includes

#### Box-6




- Accessories \* (1)
- Batteries & Motors \* (1)



### This Includes

#### Box-7

- Base Plated \* (1)
- Wheels \* (1)

S.NO	Pieces Name	Picture	Quantity
1	P 21*21		5
2	P7*11		10
3	Wheels		10



# EDUCATOR SET VERSION 2.0

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### Number of Chapters/Grade/Course

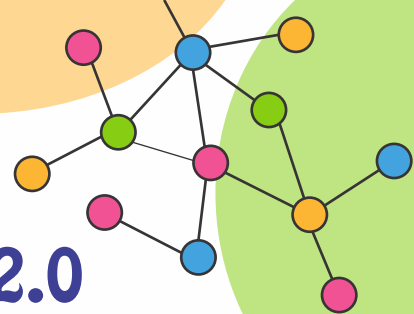
GRADE	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	TOTAL
Junior	26	26	-	-	-	-	-	-	52 Chapters
Logic Blocks	-	-	-	3	8	-	-	-	11Chapters
Discovering Motion	-	-	15	7	10	-	-	-	32 Chapters
Discovering Electricity	-	-	7	15	7	-	-	-	29 Chapters
Discovering Electronics	-	-	-	-	-	8	12	14	34 Chapters
Boffin Phase 2	-	-	-	-	-	12	10	8	30 Chapters
Coding & AI/ML	-	-	-	-	-	6	8	8	22 Chapters
Marble STEM	-	-	3	5	-	-	-	-	08 Chapters
Arvr	-	-	-	-	2	2	-	-	04 Chapters
3D Designing	-	-	-	-	3	2	-	-	05 Chapters
Junior Electronics	2	2	5	-	-	-	-	-	09 Chapters
Junior Aviation	2	2	-	-	-	-	-	-	04 Chapters

**Total Chapters/ Grade = 30**

### Educator set Family

Technology	G(1-2)	G(6-8)	G(1-5)	G(1-8)
Construction Set X	1	2	2	2
Construction Set Y	1	2	2	2
Junior Electronics	1	-	2	2
Logic Blocks V2	-	-	2	2
Marble Stem	-	-	1	2
Discovering Electronics	-	2	-	2
Boffin Basic V2	-	1	-	1
Accessories	1	1	1	1
Base Plate & Wheels	1	1	1	1

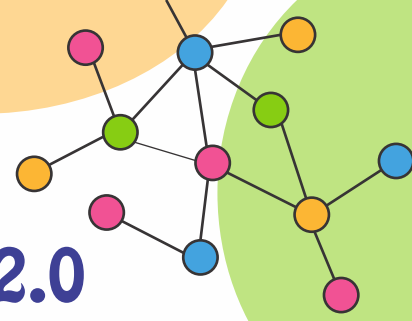




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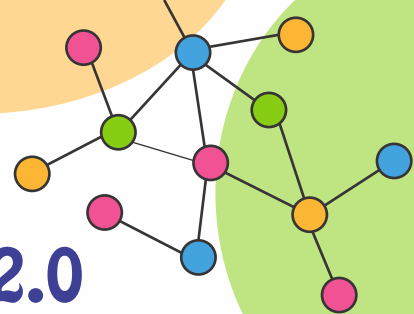
Grade 1				
SN	Course	Project names	Concepts	Skills Developed
1	Junior Robotics	Wheeling Cart	JR - Simple Machines	Scientific Literacy Problem Solving
2	Junior Robotics	Aerodynamics Car	JR - Air Friction	Scientific Literacy Problem Solving Critical Thinking
3	Junior Robotics	Challenge: Ladder	Checkpoint -1	Problem solving Creativity Initiative
4	Junior Robotics	Trebuchet	JR - Action & Reactions	Scientific Literacy Problem Solving Critical Thinking
5	Junior Robotics	Sign Board	JR - Coding & Decoding	Problem solving Creativity Communication
6	Junior Robotics	Single suspension Car	JR - Construction Skill	Scientific Literacy Critical Thinking
7	Junior Robotics	Most stable tower	JR - Structure & Base	Creativity Initiative
8	Junior Robotics	Lift	JR - Construction Skill	Scientific Literacy
9	Junior Robotics	Money	JR - Counting	Numeracy
10	Junior Robotics	Car jack	JR - Power	Problem solving
11	Junior Robotics	Bear trap	JR - Elasticity	Social awareness
12	Junior Robotics	Challenge: Pasta Ma	Checkpoint -2	Problem solving Creativity Initiative
13	Junior Robotics	Merry Go round	JR - Rotation	Scientific Literacy Social awareness
14	Junior Robotics	Spinning Top	JR - Energy Transfer	Scientific Literacy Critical Thinking
15	Junior Robotics	Lock & Key	JR - Meshing of Gears	Scientific literacy Critical Thinking Creativity
16	Junior Robotics	Trundle Wheel	JR - Motion Conversion	Social Awareness Critical Thinking
17	Junior Robotics	Zipline Ride	JR - Gravity	Problem Solving
18	Junior Robotics	Dancing Robot	JR - Types of movements	Scientific literacy Critical Thinking Creativity
19	Junior Robotics	Digital Clock	JR - Display	Social Awareness Critical Thinking
20	Junior Robotics	Earth, Moon & Sun	JR - Orbit	Scientific literacy Social awareness
21	Junior Robotics	Find the path	JR - Sequence	Numeracy
22	Junior Robotics	Challenge: Foldable Scale	Checkpoint -3	Creativity Initiative Numeracy
23	Junior Robotics	Weight Measuring Device	JR - Balance	Social Awareness Critical Thinking
24	Junior Robotics	Plowing Machine	JR - Motor	Scientific Literacy
25	Junior Robotics	Challenge: Goal keeper &	Checkpoint -4	Problem solving Creativity Initiative
26	Junior Robotics	Clock	JR - Time	Social awareness
27	Junior Electronics	Make your First Circuit	JE - Introduction to electricity	Curiosity Critical thinking
28	Junior Electronics	Conductors & Insulators	JE - Loops	Curiosity Scientific Literacy
29	Junior Aviation	Paper plane	JA - Parts of plane	Scientific literacy Social awareness Curiosity
30	Junior Aviation	Balloon Rockets	JA- Forces on plane	Scientific literacy Critical Thinking



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## Order Code - STEM-128 TO STEM-130

Grade 2				
SN	Course	Project names	Concepts	Skills Developed
1	Junior Robotics	Wheeling Cart	JR - Simple Machines	Scientific literacy Problem Solving
2	Junior Robotics	Car	JR - Structure & Base	Scientific literacy Problem Solving Critical Thinking
3	Junior Robotics	Scarecrow	JR-Links	Problem solving Creativity Initiative
4	Junior Robotics	Double Suspension Car	JR- Shock	Scientific literacy Problem Solving Critical Thinking
5	Junior Robotics	Challenge: Bridge	Checkpoint-1	Problem solving Creativity Communication
6	Junior Robotics	Single suspension Car	JR - Construction Skill	Scientific literacy Critical Thinking
7	Junior Robotics	Maze	JR - Direction	Creativity Initiative
8	Junior Robotics	Challenge- Tower	Checkpoint-2	Scientific literacy
9	Junior Robotics	Scissor Arm	JR- Pivot	Numeracy
10	Junior Robotics	Coding & Decoding	JR- Intro to Binary	Problem solving
11	Junior Robotics	Bear trap	JR - Elasticity	Social awareness
12	Junior Robotics	Challenge: Pasta Maker	Checkpoint -2	Problem solving Creativity Initiative
13	Junior Robotics	Merry Go round	JR - Rotation	Scientific literacy Social awareness
14	Junior Robotics	Spinning Top	JR - Energy Transfer	Scientific literacy Critical Thinking
15	Junior Robotics	Lock & Key	JR - Meshing of Gears	Scientific literacy Critical Thinking Creativity
16	Junior Robotics	Trundle Wheel	JR - Motion Conversion	Social Awareness Critical Thinking
17	Junior Robotics	Zipline Ride	JR - Gravity	Problem Solving
18	Junior Robotics	Dancing Robot	JR - Types of movements	Scientific literacy Critical Thinking Creativity
19	Junior Robotics	Digital Clock	JR - Display	Social Awareness Critical Thinking
20	Junior Robotics	Earth, Moon & Sun	JR - Orbit	Scientific literacy Social awareness
21	Junior Robotics	Find the path	JR - Sequence	Numeracy
22	Junior Robotics	Challenge: Foldable Scale	Checkpoint -3	Creativity Initiative Numeracy
23	Junior Robotics	Weight Measuring Device	JR - Balance	ocial Awareness Critical Thinking
24	Junior Robotics	Plowing Machine	JR - Motor	Scientific Literacy
25	Junior Robotics	Challenge: Goal keeper &	Checkpoint -4	Problem solving Creativity Initiative
26	Junior Robotics	Clock	JR - Time	Social awareness
27	Junior Electronics	Make your First Circuit	JE - Introduction to electricity	Curiosity Critical thinking
28	Junior Electronics	Conductors & Insulators	JE - Loops	Curiosity Scientific Literacy
29	Junior Aviation	Paper plane	JA -Parts of plane	Scientific literacy Social awareness Curiosity
30	Junior Aviation	Balloon Rockets	JA-Forces on plane	Scientific literacy Critical Thinking

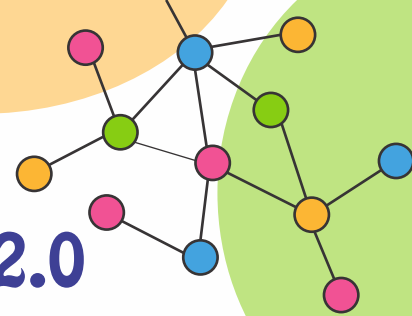


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## Order Code - STEM-128 TO STEM-130

Grade 3				
SN	Course	Project names	Concepts	Skills Developed
1	Discovering Motion	Counter Balance Model	DM- Lever	Scientific literacy Problem Solving Critical Thinking Social Awareness
2	Discovering Motion	Ramp Working Model	DM- Inclined plane	Scientific literacy Problem Solving Critical Thinking Social Awareness
3	Discovering Motion	Pulley system	DM- Pulley	Scientific literacy Problem Solving Critical Thinking Social Awareness
4	Discovering Motion	Electronic Seat	DM- Screw	Scientific literacy Problem Solving Critical Thinking Social Awareness
5	Discovering Motion	Basic Car	DM- Wheels & Axles	Scientific literacy Problem Solving Critical Thinking Social Awareness
6	Discovering Motion	Trebuchet	DM- Energy conversion	Scientific literacy Problem Solving Critical Thinking Social Awareness
7	Discovering Motion	Challenge: Finding The Range	Checkpoint-1	Scientific literacy Problem Solving Critical Thinking Social Awareness
8	Discovering Motion	Launcher	DM- Elastic properties	Problem solving Creativity Initiative
9	Discovering Motion	Locomotive Coach	DM- Joints & Pull	Scientific literacy Critical Thinking
10	Discovering Motion	Giant Wheel	DM- Rotation & Revolution	Application skills Critical Skills
11	Discovering Motion	Mono Rail	DM- Rack Gear	Scientific literacy Critical Thinking
12	Discovering Motion	Merry Go Round	DM - Application of motion	Problem solving Creativity Initiative
13	Discovering Motion	Crazy bot with Vibration	DM- Randomness	Application skills Critical Skills
14	Discovering Motion	Balance Scale	DM- Counter weight	Construction Skills Problem Solving
15	Discovering Motion	Challenge: Grabber	Checkpoint-2	Problem solving Creativity Initiative
16	Discovering Electricity	Basic Circuits	DEC-Atom & Electrons	Curiosity Critical Thinking problem solving
17	Discovering Electricity	Conductors & Insulators	EC- Properties of Material	Social Awareness skills Curiosity
18	Discovering Electricity	Water Overflow Alarm	EC-Closed & Open loop	Scientific Skills Circuit Skills
19	Discovering Electricity	Polarity	EC- Uni & Bidirectional	Scientific Skills Circuit Skills
21	Discovering Electricity	Challenge: Party Doorbell	Checkpoint -3	Problem solving Creativity Initiative
22	Discovering Electricity	Piezoelectricity	EC- Energy Transformation	Scientific Skills Circuit Skills
23	Discovering Electricity	Challenge: House Supply system	Checkpoint -4	Scientific Skills Circuit Skills Social Awareness skills
24	Marble STEM	First marble track	MB- Structure & Planning	Construction Skills Problem Solving Critical Thinking Social Awareness
25	Marble STEM	Fastest & Slowest Tracks	MB- Construction technique	Construction Skills Problem Solving Critical Thinking
26	Marble STEM	Path Finder	MB- Possibilities	Construction Skills Problem Solving Critical Thinking Numeracy
27	Junior Electronics	Series & Parallel Circuits	JE- Human Circuits	Curiosity Circuit skills
28	Junior Electronics	Buzz Wire loop Game	JE- Continuity Testing	Curiosity Scientific Literacy Construction skills
29	Junior Electronics	Tone Generator Box	JE- Resistances Curiosity	Curiosity
31	Junior Electronics	The Biggest conductor ever- Earth	JE- Conducting Materials	Curiosity Scientific Literacy Construction skills
32	Junior Electronics	Challenge: Make your own Instrument	Checkpoint -5	Problem solving Creativity Initiative

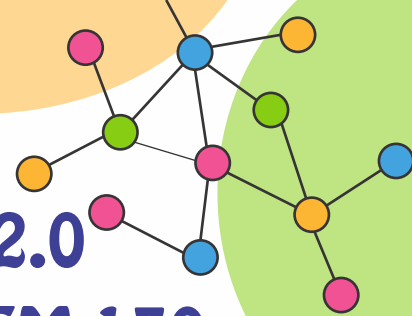




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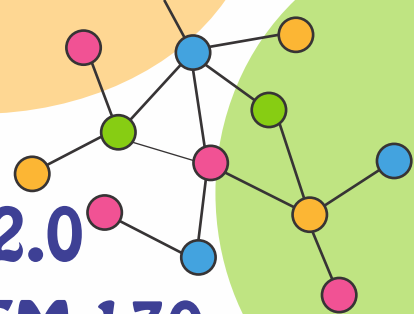
Grade 4				
SN	Course	Project names	Concepts	Skills Developed
1	Discovering Motion	Balloon Powered Car	DM- Thrust	Scientific literacy Problem Solving Critical Thinking
2	Discovering Motion	Swing	DM- Periodic Motion	Scientific literacy Problem Solving Critical Thinking
3	Discovering Motion	Power Press Machine	DM- Crank & Slider	Scientific literacy Problem Solving Critical Thinking
4	Discovering Motion	4-wheel Drive car	DM- Introduction to Gears	Scientific literacy Problem Solving Critical Thinking
5	Discovering Motion	Make me fast , Make me slow	DM- Change of gear	Scientific literacy Problem Solving Critical Thinking
6	Discovering Motion	Spinning Top	DM- Applications of Gears	Scientific literacy Problem Solving Critical Thinking Creativity
7	Discovering Motion	Challenge: Fastest Car	DM- Checkpoint-1	Application skills Critical Skills
8	Logic Blocks	Follower Car	LB- Reflection	Scientific Literacy Application Skills ICT Skills
9	Logic Blocks	Automatic Dispenser	LB- Sensors & Actuators	Scientific Literacy Application Skills ICT Skills
10	Logic Blocks	Challenge: Shy Robot	Checkpoint -2	Problem solving Creativity Initiative
11	Discovering Electricity	Stroboscopic effect	DEC- Frequency	Circuits Skills Social Awareness skills
12	Discovering Electricity	Voltage & Current	DEC - Potential Difference	Circuits Skills Social Awareness skills
13	Discovering Electricity	Series & Parallel Circuit	DEC-Current & Voltage	Circuits Skills Applications Skills Social Awareness skills
14	Discovering Electricity	Secret Morse Codes	DEC- Binary Codes	Scientific Literacy Application Skills ICT Skills
15	Discovering Electricity	OHM's law	DEC- Resistance	Circuits Skills Applications Skills Scientific Literacy
16	Discovering Electricity	Short Not circuit	DEC- Short circuit	Circuits Skills Applications Skills Scientific Literacy
17	Discovering Electricity	AND & OR gates	DEC- Gates	Scientific Literacy Application Skills ICT Skills
18	Discovering Electricity	Universal Gates	DEC- NAND & NOR	Scientific Literacy Application Skills ICT Skills
19	Discovering Electricity	Challenge: Tone generator card	Checkpoint -1	Problem solving Creativity Initiative
20	Discovering Electricity	Resistance in Series & Parallel	DEC- Total Resistance	Circuits Skills Applications Skills Scientific Literacy
21	Discovering Electricity	Magnetic Compass	DEC- Magnetism & Polarity	Applications Skills Scientific
22				Literacy
23	Discovering Electricity	Dynamo	DEC- Motor & Its features	Circuits Skills Applications Skills Scientific Literacy
24	Discovering Electricity	Super Vibrator	DEC- Lever Circuits Skills	Construction Skills Scientific Literacy
25	Discovering Electricity	Big Bulley the Small	DEC- Current Bypass	Circuits Skills Applications Skills Scientific Literacy
26	Electronics Circuits	Fuse	DEC- Electrical Safety	Circuits Skills Applications Skills Scientific Literacy Social Awareness
27	Marble STEM	First marble track	MB- Structure & Planning	Construction Skills Problem Solving Critical Thinking Social Awareness
28	Marble STEM	Propulsion Mechanism	MB- Newton's Cradle	Construction Skills Problem Solving
30	Marble STEM	Alternating Switch	MB- Mechanical Switch	Construction Skills Problem Solving Critical Thinking
31	Marble STEM	Lifting Mechanism -1	MB- Impact	Construction Skills Problem Solving Critical Thinking Scientific Literacy
32	Marble STEM	Concentric circle track	MB- Infinite Loop	Construction Skills Problem Solving Critical Thinking



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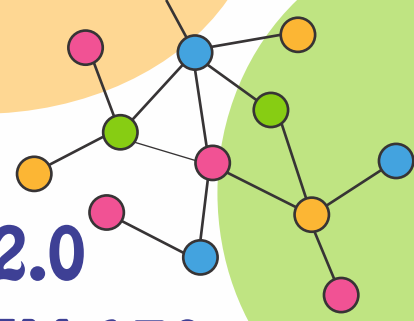
Grade 5				
SN	Course	Project names	Concepts	Skills Developed
1	Discovering Motion	Smart Waving Robot	DM- Link & Joint Mechanism	Scientific literacy Problem Solving Critical Thinking ConstructionSkills Creativity
2	Discovering Motion	Power press machine	DM- Cam & Follower	Scientific literacy Problem Solving Critical Thinking ConstructionSkills Creativity
3	Discovering Motion	Scissor Lift	DM- Power & Velocity	Scientific literacy Problem Solving Critical Thinking ConstructionSkills Creativity
4	Discovering Motion	Rack & Pinion Lift	DM- Mechanical Advantage	Scientific literacy Problem Solving Critical Thinking ConstructionSkillsCreativity
5	Discovering Motion	Kicker Robot	LB –Digital Circuits	Problem solving Creativity Initiative
6	Discovering Motion	Challenge: Guard Robot	Checkpoint-1	Scientific literacy Problem Solving Critical Thinking ConstructionSkills Creativity
7	Discovering Motion	Make me Fast/ Make me Slow	DM- Gears	Scientific literacy Problem Solving Critical Thinking ConstructionSkills Creativity
8	Discovering Motion	Speed Multiplier	DM- Torque vs speed -1	Scientific literacy Problem Solving Application Skills
9	Discovering Motion	Speed Reduction	DM- Torque vs speed -2	Scientific literacy Problem Solving Application Skills
10	Discovering Motion	Gear Changing Car	DM- Three speed car	Scientific literacy Problem Solving Application Skills Social Awareness Skills
11	Discovering Electricity	AC vs DC	DEC- Intro etelectricity	Circuits Skills Scientific Literacy Social Awareness skills
12	Discovering Electricity	ON & Fadeeee	DEC- Intro to Capacitors	Circuits Skills Scientific Literacy Social Awareness skills
13				Awareness skills
15	Discovering Electricity	Sound Effects	DEC- Components & its effect	Circuits Skills Scientific Literacy
16	Discovering Electricity	LDR operated	LED DEC- Light Spectrum	Circuits Skills Scientific Literacy Application skills
17	Discovering Electricity	Voltage Divider	DEC- Circuit Application	Circuits Skills Scientific Literacy Application skills
18	Discovering Electricity	Potentiometer	DEC- Variable Voltage	Circuits Skills Scientific Literacy Application skills
19	Logic Blocks	Monorail	LB – Switch Block	ICT Skills Scientific Literacy Application skills
20	Logic Blocks	Sliding Bed	LB - Rack Gear	ICT Skills Scientific Literacy Application skills
21	Logic Blocks	Refrigerator	LB - Light Spectrum	ICT Skills Scientific Literacy Application skills
22	Logic Blocks	SmartBox	LB: Application of Infrared.	Problem solving Creativity Initiative
23	Logic Blocks	Autonomous car	LB- Not gate	ICT Skills Scientific Literacy Application skills
24	Logic Blocks	Musical Robot	LB - Truth Table	ICT Skills Scientific Literacy Application skills
25	Logic Blocks	Challenge: Obstacle Avoider	Checkpoint-2	Problem solving Creativity Initiative
26	Logic Blocks	Line follower Robot	LB - Infrared decision making	Problem solving Creativity Initiative
27	Logic Blocks	Wheel SortingMachine	LB: Design thinking	Scientific Literacy Designing Skills Creativity Problem Solving
28	Tinkercad -3D	Harry Potter's Owl	TC – Hollow & Grouping	Scientific Literacy Designing Skills Creativity Problem Solving
29	Tinkercad -3D	Challenge: Designyour Avatar	Checkpoint-3	Scientific Literacy Designing Skills Creativity Problem Solving
30	Virtual Reality	Intro to ARVR	VR - Orbital Camera	Scientific Literacy Designing Skills Creativity Problem Solving
31	Virtual Reality	Hogwartz Calling	VR - Motion & Alignment	Scientific Literacy Designing Skills Creativity Problem Solving



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Grade 6				
SN	Course	Project names	Concepts	Skills Developed
1	Discovering Electronics	AND Gate	DE-Truth Table	ICT Skills Circuit Skills Scientific Literacy
2	Discovering Electronics	OR Gate	DE-Truth Table	ICT Skills Circuit Skills Scientific Literacy Application skills
3	Discovering Electronics	NOT Gate	DE-Truth Table	ICT Skills Circuit Skills Scientific Literacy Application skills
4	Discovering Electronics	NAND Gate	DE-Truth Table	ICT Skills Circuit Skills Scientific Literacy Application skills
5	Discovering Electronics	NOR Gate	DE-Truth Table	ICT Skills Circuit Skills Scientific Literacy Application skills
6	Discovering Electronics	XOR Gate	DE-Truth Table	ICT Skills Circuit Skills Scientific Literacy Application skills
7	Discovering Electronics	XNOR Gate	DE-Truth Table	ICT Skills Circuit Skills Scientific Literacy Application skills
8	Discovering Electronics	SOP Circuit	DE-Deduction of logical function	ICT Skills Circuit Skills Scientific Literacy Application skills
9	ESP-32	Introduction to Boffin v2	Boffin - Controllers	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
10	ESP-32	Blinky bot	Boffin - Events & Time sleep	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
11	ESP-32	What if you press a button	Boffin - Input controlled output	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
12	ESP-32	ON & OFF switch using IR	Boffin - IR Sensor	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
13	ESP-32	Giant wheel with speed control	Boffin - PWM & duty cycle	ICT Skills Scientific Literacy Application skills Construction
14				Skills Coding Skills
15	ESP-32	Giant wheel with counter	Boffin - Variables	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
16	ESP-32	Roll a dice	Boffin - Serial Monitor	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
17	ESP-32	Game of Housey	Boffin - Lists	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
18	ESP-32	Line follower Bot	Boffin - Calibration & Reflection	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
19	ESP-32	Advance Line follower bot	Boffin - Two IR sensor	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
20	ESP-32	Swing Controller	Boffin – Conveyor Belt	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
21	ESP-32	Automatic Hand Sanitizer	Boffin – Conveyor Belt	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
22	Artificial Intelligence	Home Automation	AI-Text Recognition Social Awareness Skills	ICT Skills Scientific Literacy Application skills Coding Skills Adaptability
23	Artificial Intelligence	Covid battle	AI-Sound Recognition	ICT Skills Scientific Literacy Application skills Coding Skills
24	Artificial Intelligence	Sign Language	AI-Gesture Recognition	ICT Skills Scientific Literacy Application skills Coding Skills Adaptability Awareness
25	Artificial Intelligence	Phone security app	AI-Face Recognition	ICT Skills Scientific Literacy Application skills Coding Skills Adaptability Social Awareness Behavioral Awareness
26	Artificial Intelligence	Challenge: Make a Snapchat filter for your face.	AI- Face Recognition	ICT Skills Scientific Literacy Application skills Coding Skills Adaptability Social Awareness Behavioral Awareness
27	Tinker cad -3D	Design a Fruit	TC-Angular Displacement	Scientific Literacy Designing Skills Creativity Problem Solving
28	Tinkercad -3D	Human Heart	TC- Vertical Alignment	Scientific Literacy Designing Skills Creativity Problem Solving
29	Virtual Reality	Trip to the moon	VR - Camera as a sprite	Scientific Literacy Designing Skills Creativity Problem Solving
30	Virtual Reality	Human Displacement	VR- Lateral Displacement	Scientific Literacy Designing Skills Creativity Problem Solving



# EDUCATOR SET VERSION 2.0

## Order Code - STEM-128 TO STEM-130

Grade 7				
SN	Course	Project names	Concepts	Skills Developed
1	Discovering Electronics	Introduction to Gates	DE-Logic operations	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
2	Discovering Electronics	Multiplexer	DE-One to Many	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
3	Discovering Electronics	Demultiplexer	DE-Many to one	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
4	Discovering Electronics	SOP Circuit	DE-Deduction of logicfunctions	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
5	Discovering Electronics	POS Circuit	DE-Deduction of logicfunctions	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
6	Discovering Electronics	SOP using universal gates	DE-Representation of Gates	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
7	Discovering Electronics	POS using universal gates	DE-Application	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
8	Discovering Electronics	K- Map reduction - SOP	DE-Graphical Method	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
9	Discovering Electronics	K- Map reduction - POS	DE-Expression deduction	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
10				Application skills
11	Discovering Electronics	Combinational circuits using M	DE-Select lines forvarious Inputs	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
12	Discovering Electronics	Combinational circuits using	DE-MUX DE-Select lines forvariou	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
13	Discovering Electronics	Astable Multivibrator	DE- Trigger input	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
14	ESP-32	Swing controllerConveyororbelt	Boffin- Counter	ICT Skills Scientific Literacy Application skills ConstructionSkills Coding Skills
15	ESP-32	Automatic Hand sanitizer	Boffin- Limit & IR	ICT Skills Scientific Literacy Application skills Construction Skills Coding Skills
16	ESP-32	Turtle Programming	Boffin- Python.(draw)	ICT Skills Scientific Literacy Application skill Coding Skills
17	ESP-32	Snowflakes	Boffin- Variables	ICT Skills Scientific Literacy Application skill Coding Skills
18	ESP-32	Investment & Returns	Boffin- Input &Datatypes	ICT Skills Scientific Literacy Application skill Coding Skills
19	ESP-32	Guess the word	Boffin- List	ICT Skills Scientific Literacy Application skill Coding Skills
20	ESP-32	Locate me	Boffin-	ICT Skills Scientific Literacy Application skill Coding Skills Numeric
21	ESP-32	Challenge: Make acalculator	Checkpoint-2	ICT Skills Scientific Literacy Application skill Coding Skills Leadership Skills
22	Data Science	Introduction to Statistics	DS- Data Collection	ICT Skills Construction Skills Social Awareness Decision making Skills
23	Data Science	Descriptive & Inferential	DS- Data Representation	ICT Skills Construction Skills Social Awareness Decision making Skills
24	Data Science	Central Tendency	DS- Inferences	ICT Skills Construction Skills Social Awareness Decision making Skills
25	Data Science	Measure of Dispersion	DS- Outliers	ICT Skills Construction Skills Social Awareness Decision making Skills
26	Data Science	Covariance & Correlation	DS- Data Dependencies	ICT Skills Construction Skills Social Awareness
27				Decision making Skills
28	Data Science	Inter Quartile Range	DS- Maximum density of data	ICT Skills Construction Skills Social Awareness Decision making Skills
29	Data Science	Probability Theory	DS- Chances & occurrences	ICT Skills Construction Skills Social Awareness Decision making Skills
30	Data Science	Challenge:	DS- Chances & occurrences	ICT Skills Construction Skills Social Awareness Decision making Skills



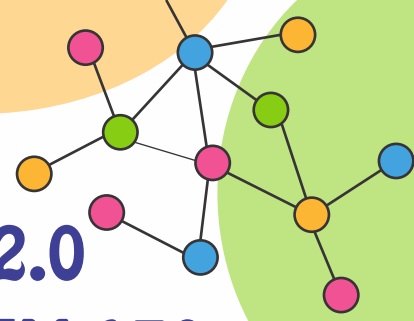


# EDUCATOR SET VERSION 2.0

## Order Code - STEM-128 TO STEM-130

Grade 8				
SN	Course	Project names	Concepts	Skills Developed
1	Discovering Electronics	Introduction to Gates & MUX	DE- Checkpoint-1	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
2	Discovering Electronics	Astable multivibrator	DE-No stablestate	Flop ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
3	Discovering Electronics	Monostable multivibrator	DE-One stablestate Flip	Flip Flop ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
4	Discovering Electronics	Bistable multivibrator	DE-Two stablestate	Flop ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
5	Discovering Electronics	555 Timer -1	DE- PulseGenerator	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
6	Discovering Electronics	556 Timer -2	DE- Two Timer inoperation	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
7	Discovering Electronics	557 Timer -3	DE- Applicationof timer	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
8	Discovering Electronics	Challenge-1	Checkpoint -2	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
9	Discovering Electronics	7 -Segment LED	DE- Digital Visualization	ICT Skills Circuit Skills Scientific Literacy Problem Solving
10				Application skills
11	Discovering Electronics	Decoders	DE- Truth Table	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
12	Discovering Electronics	Encoders	DE- Truth Table	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
13	Discovering Electronics	Half Adder (1-bit)	DE- Truth Table	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
14	Discovering Electronics	Full Adder (2-bit)	DE- Truth Table	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
15	Discovering Electronics	Challenge-2	Checkpoint-3	ICT Skills Scientific Literacy Application skill Coding Skills Leadership Skills
16	ESP-32	Automatic Metro	Boffin- Multi Input & Output devices	ICT Skills Circuit Skills Scientific Literacy Problem Solving Application skills
17	ESP-32	Challenge: Mouse Trap	Checkpoint-4	ICT Skills Scientific Literacy Application skill Coding Skills Leadership Skills"
18	ESP-32	Blinking LED	Boffin- Intro to Text	ICT Skills Scientific Literacy Application skill Coding Skills Leadership Skills





# EDUCATOR SET VERSION 2.0

## Order Code - STEM-128 TO STEM-130

Grade 8				
SN	Course	Project names	Concepts	Skills Developed
19	ESP-32	Make a Torch	Boffin- Interfacing Input	CT Skills Scientific Literacy Application skill Coding Skills Leadership Skills
20	ESP-32	Motor controls	Boffin- Interfacing output using python	CT Skills Scientific Literacy Application skill Coding Skills Leadership Skills
21	ESP-32	WIFI with	ESP-32 Boffin- Intro to IOT	ICT Skills Scientific Literacy Application skill Coding Skills Leadership Skills Social Awareness Skills
22	ESP-32	Create a web page	Boffin- Applications of IOT	ICT Skills Scientific Literacy Application skill Coding Skills Leadership Skills Social Awareness Skills
23	ESP-32	WIFI controlled LED	Checkpoint-4	ICT Skills Scientific Literacy Application skill Coding Skills Leadership Skills Social Awareness Skills
24	Hardware based AI	Face Controlled Toll Booth	Hardware based AI	ICT Skills Construction Skills Scientific Literacy Application skills Coding Skills Adaptability Behavioral Awareness
25	Hardware based AI	AI operated Food dispensing Stations	Hardware based AI	ICT Skills Construction Skills Scientific Literacy Application skills Coding Skills Adaptability Behavioral Awareness
26	Hardware based AI	Rock paper Scissor	Hardware based AI	ICT Skills Construction Skills Scientific Literacy Application skills Coding Skills Adaptability Behavioral Awareness
27				Behavioral Awareness
28	Hardware based AI	Challenge -1	Checkpoint-5	ICT Skills Construction Skills Scientific Literacy Application skills Coding Skills Adaptability Behavioral Awareness
29	Hardware based AI	Voice operated Automatic Car	Hardware based AI	ICT Skills Construction Skills Scientific Literacy Application skills Coding Skills Adaptability Behavioral Awareness
30	Hardware based AI	Gesture controlled Robotic Arm	Hardware based AI	ICT Skills Construction Skills Scientific Literacy Application skills
31				Coding Skills Adaptability Behavioral Awareness
32	Hardware based AI	Challenge :4	Checkpoint-5	Scientific Literacy Application skill Coding Skills Social Awareness Skills
33	Hardware based AI	Traffic Rules following Bot	Hardware based AI	Scientific Literacy Application skill Coding Skills Social Awareness Skills

Thank you