UTTARAKHAND STATE COUNCIL FOR SCIENCE TECHNOLOGY

Vigyan Dham, Chakrata Road, Jhajra, Dehradun-248015(Uttarakhand)

RFP For Providing Services of

"Labs on Wheels"

REQUEST FOR PROPOSAL (RFP)

FOR

'Lab on Wheels' Programme

Genesis:

Schools in the state need to be strengthened with the hands on practical/ tools to create an interactive and sustainable approach to experiential learning as envisaged in the National Education Policy (NEP). Where the world is leading towards the advance learning and latest technologies, we needs to improve the concepts, basis learning and enhance the explanation-based learning for NEP to the students. While India's 'Demographic dividend' is seen as its comparative advantage across the world, it has not succeeded much in reforming its heavily regulated education system to equip its youngsters.

With the Right to Education Act, 2008, that makes free and compulsory education for children between 6 and 14 years a fundamental right, enrolment rates have increased significantly (96% of all children in India enroll in schools) in the last decade. However, enrolment alone is not a right measure, especially when we consider quality and how many Indian children are unable to attend school due to their socio-economic constraints.

Cognitive scientists have shown that the human brain can retain in its long-term memory 95% of what we teach. Any attempt that makes use of this critical insight when developing our experiential programs that focus on learning through participation, peer-to- peer teaching and hands-on activities will have positive impact. This approach has demonstrated an increased level of motivation and participation, better concept retention and strengthened leadership among children. Using experiential and hands-on, child-centric learning, teacher education and scalable methods, therefore any initiative that aims to bring about a shift in five vital behaviors (below) through highly innovative and effective outreach channels. Answers to- 'Yes, to Why,'

‘Looking to Observing,’ ‘Passiveness to Exploring,’ ‘Text-book to Hands-on, ’‘Fear to Confidence’ are key to success of any educational intervention.

Eighth All India School Education Survey Conducted by NCERT in 2009, which shows that status of laboratory facilities in India is not adequate. In secondary schools in the country, only 42.03% Schools are having facility of science laboratories and among these, 70.64% schools are having adequate science lab facilities. In higher secondary schools, at secondary stage only 59.67% are having Science laboratory and out of these schools, only 57.14% are having adequate facility.

The NEP has strongly emphasized experiential learning. Therefore, to sync educational practices with NEP and to address the problem of STEM education in the state, suitable interventions are necessary with urgency. While it will be a daunting task to establish such a large number of laboratory facilities in schools, the gap of science laboratories and to complement science education in the schools of rural and hilly areas of the state with hands-on and experiential learning resources, ‘LAB ON WHEELS’ programme in the state may be a an inexpensive solution and right step to urgently address the issue.

Objective of ‘Lab on Wheel’ Programme

1. To act as mobile laboratory for government schools to complement science education through hands-on experiments and activities in STEM (Science, Technology, Engineering and Maths) education and facilitate discovery approach in learning of science.
2. To spark curiosity, nurture creativity, innovative spirit and instill confidence in students of under resourced government schools of Uttarakhand spread over 13 districts.
3. To develop experiential skills and encourage meaningful learning.
4. Empowering government school educators/teachers to design creative ways to teach science in classrooms.
5. To undertake professional development of Science and Maths teachers.
6. To inspire innovation.

The Requirement

1. Providing Services in Phases for The 'Lab on Wheels' in all 13 Districts in a phased manner:

In order to undertake science popularisation and science communication activities in rural areas, supplement school science and mathematics education, develop curiosity, interest & motivation of students to learn science and develop interest in science and maths, undertake professional development of science and maths teachers and to meet the objectives of the programme, services mobile science laboratories for the "**Lab on Wheels"** programme are required to be implemented in phases for the 13 districts of the state. These buses will popularize science, take science to nook and corner of the state and facilitate the learning of curriculum-based concepts in biology, chemistry, physics, mathematics etc. through lab experiments, hands-on exhibits/models, activities & demonstrations.

Besides Lab on Wheel buses, their operation and optimum utilization will also be an integral part of the services provided. Therefore, the agency will be required to:

1. Procure vans as per requirement, body modification as per requirement of the labs and operation of Labs on Wheel, for all the 13 district, round the year.
2. Recruitment of trained Supervisor, Instructors and Driver for each 'Lab on Wheel' van provided.
3. Coordination with education department for planning and execution of visit roster in schools.
4. Arranging all essential resource material and accessories for the programme as per requirement in sync with NCERT/state curriculum of 6 to 10 standards in STEM.
5. Periodic evaluation/assessment of the programme and submitting reports
6. Organizing all activities, events, fairs and festivals as per the list below:
    a. Hands on experiments based on curriculum for 6-10 standards
    b. Entertaining science shows to arouse curiosity of students
    c. Science film shows
    d. Live sky observation sessions with telescope
    e. Science fairs with participatory workshops
    f. Innovation festivals
    g. Teacher training/workshops for their professional development

The Infrastructure:

A. <u>The Bus/Van:</u>

1. Buses/Vans (BS-6) (Tempo Traveller 3050 delivery van. with 9.3 ft. Loading space **OR** Ashok Leyland Bada dost i-4 model with 9.8 ft. Loading space (The van's body to be converted/modified as per lab requirement), including registration, Life-time tax, permits, GPS, Speed governor, Painting and artwork on the bus as per UCOST specifications.
2. Annual refurbishing, Brand stickering, painting, spare parts, tools, periodic recommended servicing and day to day maintenance
3. Fuel for running the bus

B. Kits : Each van will consist of science and maths kits (Suggestive list given in **Annexure-III**) to explain concepts in science suitable for class 6-10 as per NCERT syllabus in enjoyable way**,**

C. Experiments: experimental resources and setup in each van to conduct experiments in classroom based on concepts of science included in the curriculum of class 6 to 10 as per NCERT syllabus. (Suggestive list of material – **Annexure-III)**

D. Exhibits: Table-Top interactive/working Exhibits/models for each van explaining principles of science and mathematics through fun and excitement
(minimum list in **Annexure-III**).

Add-on Resources: Telescope (Celestron Power Seeker), Lap top (Intel Core i5 processor (HP/Dell), DLP/LCD projector for film screening, projection screen and science videos on various topics of science, maths and technology for each van**.**

Expected Outcome:

1. Better learning of science concepts
2. Exposure of students to concepts in their curricula with hands-on approach resulting in better understanding and development of motor and experimental skills
3. Enhanced appreciation and understanding of science through exposure of fun side of experiential learning.

4. Students will acquire questioning attitudes, problem solving skills and scientific temper.
5. Students will be better aware of STEM issues for taking-up the challenges of 21st century and be inspired to take S&T as career option.
6. Students will development of entrepreneurial and innovative spirit
7. Science and mathematics teachers will be professional in their approach and improve classroom transaction

The Content and Operation:

Topics to be covered (Minimum but not limited to):

Digestive System, Force, Chemical and Physical change, Cell and Microscope, Human Torso, Acid, Base and Salt, Skeleton System, Separation Techniques, Light, Electricity, Magnetism, Friction, Sense Organs, Ecosystem, Body Movements, Heat and Temperature, Biodiversity, Respiration, Nervous System, State of Matter, Metal and Non-Metal, Sound, Pressure, Life Cycle of Animals, Water/Pressure and Density, Micro-organisms, Astronomy, Work and Energy, Circulatory System, Force and Motion, Chemistry in Daily Life, Anatomy, Changes Around Us, Metamorphosis, Photosynthesis, States of Matter, Environment, Ecology and Area, volume, quadratic equation, simple and compound interest, sets, binary numbers, many more as per state curriculum for standards 6 to 10.

Mobile Science Lab: Each van well-fitted with lab equipment, models and outreach resource material that will travel with a driver and two instructors to government run schools in each district. The instructors to build on children's innate curiosity through simple experiments, models made from easily available, reusable material. This outreach program will also have the capacity to conduct:

Science Fairs: Science Fairs and summer camps will be organised by each unit to build models and demonstrate science concepts to the children. The science experiments will provide the children with the opportunity to learn about various topics through a fun, hands-on and lasting experience. Hands-on workshops on interesting themes will also be organized to develop interest

of students. Some Young enthusiastic students are to be identified as volunteers during these fairs and these are instrumental for deliver peer-to-peer learning during subsequent fairs**.** Various competitions, problem solving exercises, lectures by scientists/technocrats and question answer sessions will also be organized for students.

Volunteer Training: encouraging peer to peer teaching to give children the confidence to communicate their ideas, explain concepts and better understand themselves through teaching their peers should be encouraged. These volunteers are to be trained to demonstrate the science models and other science concepts to their peers. While this boosts confidence and improves communication skills of the volunteer students, it also leads to greater interaction and comprehension of concepts for the peers.

Teacher Training Workshops: Teachers are to be trained to enable them to disseminate knowledge, propagate creative-thinking and develop problem-solving skills among the children using hands-on approach to provide experiential learning. This will significantly improve the classroom learning environment and provide a more productive student-teacher interaction, leading to an improved learning ability for each child.

Sky Observation Programme: Each van is to be equipped with a good telescope for night sky observation for interested students. The sky observation sessions should precede with introductory slide show based lecture on important astronomy concepts to arouse interest of students. Volunteers may also be trained in conducting sky observation sessions and observing sky with naked eye.

Who is qualified to submit offers?

1. The agency must have at least 5 years of experience in providing such mobile science lab services in at least 2 states of India.

2. The agency should have provided or run the programme with at least 10 vans in the country. Supporting documents should be provided with the offer.

3. The agency should have pool of qualified and trained manpower to operate and conduct the programme

4. The agency should have a minimum turnover of Rs.3.0Crs. during each of the last three financial years and must provide self attested copies of their income tax returns and audited statement of accounts (duly certified by CA) for the last three financial years ending March 2022.

5. The agency should have infrastructure and capacity to launch the programme in entire state in phases within 3 months of appointment.

Time Period:

Offer from the interested agency must contain detailed strategy for execution of this innovative and creative programme. The services required are at least for 1 to 3 years in phases.

Payment Schedule:

Payment will be made on quarterly basis on production of reports of operation duly certified by the head of the schools/institutions covered.

Selection Process:

The technical and commercial offers must be submitted in separate envelopes superscribed as "Technical offer" and "Commercial Offer". Both the technical and commercial offers should be submitted in a Third envelope.

The technical offer from the agencies will be evaluated on the basis of adequate experience in the field, innovativeness, infrastructure and expertise of operation of such a programme.

Interested agencies may submit their offer in the proforma (**Annexure-II)** along with agency details in the proforma (**Annexure-I)**. Proposed strategy for operation of the programme may also be enclosed.

The technical bids from the agencies will be opened first for their evaluation. Commercial bids from only those agencies whose offers are found technically suitable will be opened for the further process.

Annexure-I

Uttarakhand State Council for Science &Technology
Vigyan Dham, Jhajra, Chakrata Road,
Dehradun -248015 (Uttarakhand)

Proforma for agencies interested in providing Services of " Lab on Wheels"

(Additional sheets may be attached for detailed information, wherever necessary)

1.	Name of the Agency/Firm/Organisation	
2.	Full Postal Address	
3.	Telephone Nos.	
4.	E-mail	
5.	a. PAN b. Registration No. c. GST Reg. No. (Please attach copies)	
6.	Type of Organisation(Please attach Bye-Laws, registration certificate, whichever is applicable)	
7.	Name of the Professional Qualification of the Chairman/head and Board members	
8.	Number of Professionally qualified staff employed in the organisation	
9.	No. of subordinate staff employed in the organisation	
10.	Whether the organisation has in-house expertise to develop hands-on and experiential learning resource material. List of resource material developed be annexed.	
11.	If there is no in-house facility, name & full address of its associate and the no. of professionally qualified staff with the associate. List of resource material that would to be procured be annexed.	
12.	Details of experience in providing Mobile Science Laboratory for schools/colleges	
13	Experience in providing Mobile Laboratory for Primary/Middle/Secondary/Higher Secondary/College. Please specify.	

13	Whether any evaluation/impact study was conducted on similar mobile laboratory programme. If yes, please attach reports.	
14	List of outreach activities conducted with mobile laboratory programme	
15.	List of State Governments/Clients to whom such services of Mobile Laboratory provided and list of units. Pl attach copies of orders/MOU's/Contracts	
16	Whether the agency has any office/setup in Uttarakhand? If Yes, details thereof	
17	Copies of audited accounts of last three years ending March, 31, 2022 may be attached	
18	Copies of ITR along with balance sheets for last three consecutive years ending March 2022 may be attached.	

Certified that the information furnished above are true to the best of my/ our knowledge. It is hereby declare that I/we will abide by the decision of UCOST on selection of competent agency.

Date: Signature with office seal & Date

N.B: 1. Enclosure (s) may be used where the space provided is inadequate.
2. Last date of submission March 20, 2023

Annexure-II

Uttarakhand State Council for Science &Technology
Vigyan Dham, Jhajra, Chakrata Road,
Dehradun -248015 (Uttarakhand)

Proforma of Offer

			Capital (Setup cost) (in INR)			
Serial No.	**Description**	**Unit(s)**	**2023-24**	**2024-25**	**2025-26**	**Total for 3 years**
01	Vehicle for Mobile Lab (BS-VI) including registration, Life tax, permits, GPS, Speed Governor, Artwork,etc.	01				
02	Refurbishing, Painting, Stickering/branding	01				
03	Science models and Experiments and work Tables	01				
04	Telescope	01				
05	Laptop	01				
06	Projector	01				
07	Projection Screen	01				
08	Induction Training of instructors	02				
09	Miscellaneous					
	Total Setup cost	01 Unit				
Annual Operating Cost						
10	Salaries & Allowances of Instructors, Supervisors , driver etc.(Includes PF, Insurance etc.)	Driver (01) Instructors (02) State Coordinator(01)				

11	Programme Cost					
	a) Diesel for daily visits to schools					
	b) Consumables, Model Replacement breakages, etc. for first year					
	c) Communication & Stationary					
	d) School extension program (2 Operation Vasantha centers)					
	e) Vehicle repairs/oil etc					
	f) Mobile Lab Staff Travel					
	g) Misc. & Contingencies					
	h) Taxes, Permit, Insurance and Registrationetc					
	i) Training, Quality, Monitoring	Lumpsum				
	Sub Total					
12	**Governance & Administrative expenses**	Lumpsum				
	Total Annual Charges in INR	01				
	Total Set-up Cost + Annual Charges in INR	01				
	Total Set-up Cost + Annual Charges in INR	13 units*				

***Note:** Services required may be implemented in entire state in phases.

13. Payment Terms:

14. Any other conditions:

Annexure-III

Suggestive List (Minimum) of Material for Experiments For Each Lab Van

Glassware

1. Droppers Glass, 4"
2. Petridish Glass, Medium size, Single
3. Petridish Plastic, Medium size, Singe
4. Beaker Glass, 1000 ml, Borosil
5. Beaker Glass, 500 ml, Borosil
6. Beaker Plastic, 250 ml, Borosil
7. Beaker Glass, 50 ml, Borosil
8. Beaker Plastic, 500 ml
9. Slides Empty (unused), Box of 50
10. Test tubes Regular/medium size, Borosil
11. Test tubes Boiling, Borosil
12. Conical flask Glass, 250 ml
13. Thistle Funnel Glass, Small
14. Measuring cylinder Plastic, 500 ml
15. Measuring cylinder Plastic, 250 ml
16. Measuring cylinder Plastic, 100 ml
17. Measuring cylinder Plastic, 50 ml
18. Syringe 2 or 3 ml
19. Cover slips Microscope, 10 boxes unit
20. Funnels Glass, Medium size
21. Funnels Plastic, Small
22. Funnels Plastic, Big
23. Bell Jar Glass with lid
24. L Tubes Regular
25. Glass rods Regular
26. Glass trough Regular
27. Glass tubes Regular
28. Round bottom flask Glass, 250 ml
29. Over flow jar Plastic, 250 ml

Apparatus/Equipment

30. Microscope Olympus (or regular)
31. Tripod stand Regular
32. Wire gauze Regular
33. Spirit lamp Metal
34. Spatula Steel, Regular size
35. Spatula Plastic, Regular size
36. Tongs Regular
37. Forceps Steel, Long
38. Forceps Steel, Small
39. Filter paper Pack of 100 papers
40. Stop watch Digital
41. Stop watch Big, Analog
42. Rubber cork - One hole For conical flask
43. Rubber cork - without holes For test tubes
44. Rubber cork - Two holes For conical flask
45. Rubber cork - One hole For test tubes
46. Test tube stand Plastic
47. Plastic bucket Small
48. Plastic Bucket Big
49. Plastic tray Medium
50. Plastic tokens Size of 2 rupee coin, packet
51. Magnifying Glass Regular
52. Permanent slides (Set) Euglena, Paramecium, Amoeba
53. Bell Small, Temple bell
54. Weighing balance Gram sensitive
55. Spoons Steel
56. Spoons Plastic (pack of 100)
57. Spoons Big
58. Measuring tape Tailors tape
59. Plastic bottle with lid Chocolate container 5 ltr capacity
60. Petrol tube Transparent, in meters
61. Nylon tube White, thick, in meters
62. Mirrors with wooden base 5 x 10 inch, flat
63. Plastic boxes (Smoke box) Rectangular, transparent
64. Test tube holders Regular with wooden handle
65. Plastic bowl Long
66. Plastic bowl 1 liter capacity
67. Motor & pestle Small
68. Hose pipe (Water pipe) Flexible, 1/2 " dia, in meters

69. Copper wire Any dia, in meters
70. Cloth bag 2 kg capacity
71. Cardboard Box Shoe box size
72. Marbles Medium size, pack of 10
73. Sponge
74. China dish Porcelain, Small
75. Deflagrating spoon Long
76. Gloves Regular, in pair
77. Goggles Regular
78. Gas Jar Glass, Regular
79. Test tube cleaning brush
80. Thermometers Alcohol, Laboratory
81. Thermometers Clinical
82. Thermometers Digital (Clinical)
83. Thermometers Maximum & Minimum
84. Wash bottles Squeezing bottle, 500 ml plastic
85. Vertical stands For test tubes
86. Red Litmus A pack of 10
87. Blue Litmus A pack of 10
88. Wooden block 10 x 10 x 10 cm, one side rough
89. Delivery tubes for test tubes Glass, with stoppers at ends
90. Plastic plate Regular dining plate
91. Bar magnets Single pieces
92.Wooden block 2 x 2 inch
93. Nuts Small, 1/4 kg pack
94. Bolts Small, 1 inch, 1/4 pack
95. Washers Small, 1/4 kg pack
96. Separating funnel Plastic
97. Sieve For flours
98. Steel plates Dining plate
99. Immersion heater 125 W
100. Flex box Junction box
101. Water bottles 1 liter capacity- Used
102. Tin Black, 250 ml capacity
103. Tin White, 250 ml capacity
104. LED Torch
105. Torch stand
106. Glass Transparent, 10 x 10 cm
107. Frosted Glass 10 x 10 cm
108. Wood pieces Ply wood, 10 x 10 cm
109. Screens
110. Lens/Mirror stand V stand
111. Glass slab Acrylic or Glass
112. Semi circular Glass slab Acrylic or Glass
113. Prism Glass, Medium size
114. Meter stick 1 meter long, any dia
115. Chessboard Without coins
116. Concave mirrors f=15cm
117. Convex mirrors f=15cm
118. Convex Lens f = 10 cm
119. Concave Lens f = 10 cm
120. Laser light Good quality
121.Black cloth 3 square meter
122. Globe Medium size
123. Plastic tub Small
124. Flute Wooden
125. Toy drum
126. Toy Guitar
127. Metal rods 20 cm length, 5 mm
128. PVC pipe 2 meters, 3/4 inch
129. Slinky spring
130. Rope Soft, 1 inch thick, 7 meter length
131. Spring Balance 0 - 100 gm
132. Spring Balance 0 - 500 gm
133. Slotted weights 50 - 50 gm set
134. Iron nails 2 inch
135. Nylon cloth 1 square meter
136. TT balls Regular packet
137.Toy car Big size
138. Carrom board coins (Complete set with striker)
139. Magnetic compass Small
140. Hammer Small
141. Horse shoe magnets
142. Needle magnet
143. Ring magnets
144. Strong magnets
145. Battery boxes 6 V, four cell capacity
146. Torch bulbs 1.5 or 2.5 V, pack of 50
147. Bulb holders for torch bulbs (1.5 V)
148. Connecting wire Black, 20 meters

149. Connecting wire Red, 20 meters
150. Switches
151. Crocodile clips Red
152. Crocodile clips Black
153. Electric Tester
154. Voltmeters 0 - 5 V
155. Ammeters 0 - 300 mA
156. Rheostat Big, 0 - 75/100 ohm
157. Bulb 60 W
158. LED bulb All colours
159. Copper rods 1 mm ia, 10 cm length
160. Acrylic pieces 5 x 2 x 1 cm
161. Connecting stands Wooden with two nails
162. Battery eliminator 0 - 12 V
163. Resistors 5 ohm
164. Resistors 2 ohms
165. Nichrome wire Thick in meters (22 gauze)
166. Nichrome wire Thin, in meters (26 gauze)
167. Cycle tube (New)
168. Rubber sheets 2 square foot
169. Cycle pump
170. Tumbler Steel
171. Metal can 1/2 liter capacity
172. Saline tube set Complete set with stoppers
173. Round bottom flask stand
174. Beads Plastic, 1 cm dia, hollow
175. Iron cubes 4 x 4 x 4 cm
176. Iron cubes 3 x 3 x 3 cm
177. Iron cubes 2 x 2 x 2 cm
178. Aluminum cubes 4 x 4 x 4 cm
179. Aluminum cubes 3 x 3 x 3 cm
180. Aluminum cubes 2 x 2 x 2 cm
181. Wooden cubes 4 x 4 x 4 cm
182. Wooden cubes 3 x 3 x 3 cm
183. Wooden cubes 2 x 2 x 2 cm
184. Copper plates For electro plating Chemicals/Reagents
185. Iodine solution 500 ml bottle
186. Methanol 500 ml bottle
187. Ethanol 500 ml bottle
188. Sodium bi carbonate 500 gm bottle
189. Sodium carbonate 500 gm bottle
190. Cresol red 125 ml, bottle
191. Methylene blue 125 ml, bottle
192. Soap solution 500 ml bottle
193. Lime water 500 ml bottle
194. Potassium permanganate 500 gm bottle
195. Spirit 5 liter bottle
196. Starch powder 100 gm bottle
197. Benedict's reagent 500 gm bottle
198. Copper supahate crystals 500 gm bottle
199. Sodium hydroxide pellets 500 gm bottle
200. Hydrochloric acid Dilute HCl, 500 ml
201. Sulphur powder 500 gm bottle
202. Magnesium ribbons Regular
203. Acetic acid 500 ml bottle
204. Calcium chloride 500 gm bottle
205. Zinc flakes 100 gm bottle
206. Copper flakes 500 gm bottle
207. Copper oxide 500 gm bottle
208. Phenolphthalein 125 ml, bottle
209. Lead nitrate 500 gm, bottle
210. Potassium iodide 100 gm, bottle
211. Barium hydroxide 500 gm bottle
212. Ammonium chloride 500 gm bottle
213. Ammonium dichromate 500 gm bottle
214. Vinegar (Bakery made) 500 ml bottle
215. Iron filings 500 gm bottle
216. Acetone 500 ml bottle
217. Iron sulphate 500 gm bottle
218. Baking soda (from general stores) 1/4 kg pack
219. Hydrogen Peroxide 500 ml bottle
220. Manganese dioxide 100 gm
221. Distill water 1 liter bottles Stationary & Consumables
222. Scissors Small
223. Cutters Regular stationary
224. Whistle Sports whistle
225. Straw Straight, pack of 100
226. Straw Bending, Pack of 100
227. Match box Any, Pack of 10 pieces
228. Permanent markers Any colour
229. Napkins or wiping cloths

230. Vaseline Small bottles
231. Thread Regular, Rolls
232. Tissue Papers Pack of 100 tissues
233. Graph sheets A4 size, bundle of 50
234. Pencils Pack of 10
235. Erasers Pack of 10
236. Sharpeners Pack of 10
237. A4 sheets Rim
238. Balloons Medium size packet
239.Transparent colour sheets (All colours-5each)
240. Black chart paper
241. Tea cups Regular packet
242.Polythene covers 3x5 inches,pack of100 gm
243. Water glasses Plastic, transparent pack
244. Cardboard sheets Brown, Thick
245. Cello tape 2" dia
246. Blades Pack of 10 pieces
247. Painting brush 0 size
248. Scales Plastic, 30 cm long
249. Ice cream sticks Pack of
250. gm 250 Chart papers Set of 10 charts incl all colours
251. Bell pins Regular, box/packet
252. Fevicol 50 gm
253. Candles Big
254. Candles Medium size pack of 5
255. Chalk Coloured, box
256. Incense sticks Pack
257. Glucose Regular packet
258. Sugar 1/4 kg pack
259. Salt 1 kg packet
260. Sketch pens-A pack of 12 pens
261.. Wax 1/4 kg pack
262. Sand paper
263. Hand wash Dettol,
264. Cotton Regular rolls
265. Washing soap Rin/Vim or any - regular size
266. Washing powder Any, 250 gm packet
267. Paper plates Medium size, pack of 50 plates
268. Stapler pins Regular
269. Coconut oil 250 ml bottle
270. Aluminum foil Regular rolls
271. Table paper Steel colour, in roll
272. Butter paper A pack of 50
273. Plastic ball Cricket ball size, smooth
274. Plastic ball Large
275. Thermocol balls Regular size packets
276. Compass Geometric/Maths
277. Protractors Geometric/Maths
278. M seal Regular, single packs
279. Rubber bands Big, A pack of 100 gm
280. Rubber bands Small, A pack of 100 gm
281. Cells 1.5 V Small (Torch cells)
282. Cells 1.5 V, Big
283. Safety pins Big, pack of 10
284. Hair pins Regular, A pack of 10
285. Camphor Regular packet
286. Red buttons Shirt buttons
287. Blue buttons Shirt buttons
288.Yellow buttons Shirt buttons
289.Insulation tapes

Models/Kits

1. Eclipse
2. Phases of moon
3. Same face of moon
4. Seasons
5. Centrifugal force kit
6. Centripetal force kit
7. Double cone
8. Inertia at Rest
9. Inertia at Motion
10. Newton 3rd law (tin ,thread, water)
11. Newton 3rd law (Wooden plank & spring balance)
12. Time period (Mass, Length & Amplitude))
13. Speed & Velocity Model
14. Transverse waves with hand rotation
15. Longitudinal waves (Slinky toy)
16. Resonance
17. Tuning fork set
18. Doppler effect
19. Optics kit (for minimum 10 experiments)

20. Smoke box (2 laser pointers, plane mirror, rough surface stand, lens and mirror stand)
21. Umbra penumbra stands
22. Pinhole camera
23. Periscope
24. Kaleidoscope
25. Lateral shift
26. Newton color disc
27. Light Ray Board
28. Electrical kit (for at least 10 experiments)
29. Levitron(Magnetic levitation experiment)
30. Electrolysis kit
31. Solar energy kit
32. Bi metallic strip
33. Heat switch
34. Ball and ring
35. Heat conductivity
36. Linear expansion
37. Convection
38.Heat absorption by blackbodies(radio meter)
39. Magdeburg hemisphere
40. Manometer
41. Submarine
42. Density by different liquid
43. Syphon system
44. Surface tension with soap bubbles
45.Conservation of momentum (Newton cradle)
46. Conservation of momentum
47. Conservation of energy (P.E & K.E)
48. Couple pendulum (energy transfer)
49. Cycloid path
50. Moment of inertia
51. Moment of inertia (hand rotation)
52. Inclined Plane Model
53. Lever/pulleys Models 54. Wedge Sets
55. Circular Motion
56. Curved mirror
57. Art bank
58. Deep well Modified - New version - TLM
59. One object eleven images
60. Steam engine
61. Paper tub
62. Simple Voltaic Cell
63. Blade and coil
64. AC & DC Dynamo Modified
65. Simple motor
66. Flemings' Left hand rule
67. Flemings' Right hand rule
68. Oerested law
69. Solenoid
70. Faradays laws
71. Wind mill
72. Optic Fibers
73. Lazy tube-Eddy current
74. Colour shadows
75. Properties of Concave mirror
76. Angular mometum
77. Hand battery
78. Sliding Kalaeidoscope
79. Magnetic field around different shapes of magnets Biology
80. Brain
81. Eye model
82. Depth perception
83. Persistence of vision
84. Reaction time
85. See your own pupil
86. Heart model
87. Skeletal system
88. Lung model
89. Working principle of Lung expansion
90. Human Torso
91. Human Jaw - Small
92. Human Kidney Model
93. Vision pipe
94. Foot joint
95. Elbow joint
97. Shoulder joint
98. Hip joint
99. Knee Joint
100. ADP & ATP – Inter-conversion Chemistry
101. Electronic configuration model
102. Plasma Ball- ionisation of gases
103. Mini Robot

104.Maths kits to explain area, volume, Pythagoras theorem, numbers etc.

Charts

1. Circulatory system
2. Digestive system
3. Respiratory system
4. Nervous systems
5. Skeletal system
6. Muscular system
7. Sense organs
8. Solar System
9. Parts of a plant/flower
10. Periodic Table
11. Eye and Ear illustrative chart
12. Water Cycle
13. Telescope illustrative (reflective & refractive)
14. Green House Effect(Global warming)
15. Photosynthesis
16. Atomic structure
17. Human Brain and its parts

General Items

1. Steel Tables
2. Badminton Wires Bundle
3. Crates/Large trays with lids for material
4. Calculator
5. Chalk Colour, Regular Box
6. Chalk White, Regular Box & duster
7. First Aid Kit
8. Plastic Brush - Washing
9. Plastic Bucket 10 ltrs
10. Plastic Jug
11. Log Book
12. Air Blower
13. Fire extinguisher
14. LCD TV
15. DVD PLAYER
16. Mats Big
17. Power board
18. Portable generator 1KW
19. Tool Box(mechanical) with drill machine
20. Took kit(electronics) with multimeter