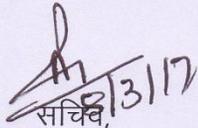


अति अल्पकालीन निविदा सूचना

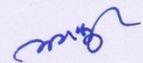
राष्ट्रीय माध्यमिक शिक्षा अभियान के वार्षिक कार्ययोजना एवं बजट में प्रावधानित प्रोजेक्ट ऑन साईस मद के अन्तर्गत वित्तीय वर्ष 2016-17 में जिला मुख्यालय के 1 (एक) सरकारी माध्यमिक विद्यालय में विज्ञान केन्द्र की स्थापना हेतु निम्न शर्तों के अधीन मानक स्तर के कम्पनियों, निर्माताओं, अधिकृत एजेंसियों से अल्पकालीन मुहरबन्द निविदाएं दिनांक 17.03.2017 के अपराह्न 05.00 बजे तक राष्ट्रीय माध्यमिक शिक्षा अभियान कार्यालय, सिमडेगा में आमंत्रित की जाती है। निविदा दिनांक 18.03.2017 के पूर्वाह्न 11.00 बजे क्रय समिति के समक्ष खोली जाएगी।

1. विज्ञान केन्द्र पाठ्यक्रम पर आधारित विज्ञान से संबंधित कम से कम 100 (एक सौ) टेबल टॉप मॉडल (किसी सरकारी शिक्षण संस्थान से अनुमोदित) User Manual के साथ Back Drops उपलब्ध कराना होगा, जिसकी सूची कार्यालय से प्राप्त की जा सकती है।
2. विज्ञान केन्द्र में निम्नांकित विषयों/गतिविधियों से संबंधित उपकरण/मॉडल उपलब्ध किया जाना है – भौतिक विज्ञान, रसायन शास्त्र, जीव विज्ञान, खगोलशास्त्र, गणित, भूगर्भ शास्त्र एवं कृषि विज्ञान आदि से संबंधित।
3. विज्ञान केन्द्र में स्थापित उपकरण/मॉडल/लाईव के साथ इसके संबंध में सक्षिप्त विवरणी भी उपलब्ध कराना होगा।
4. विज्ञान केन्द्र में महत्वपूर्ण साइंटिस्ट (कम से कम 20) के चित्र के साथ संक्षिप्त परिचय एवं उनके आविष्कार/अन्वेषण भी चार्ट के माध्यम से उपलब्ध कराना होगा।
5. सभी निविदाएं द्विलिफाफा (Double Envelopes System) के अनुसार डाली जाएगी, जिसपर तकनीकी बीड एवं वित्तीय बीड दोनों अलग-अलग अंकित कर मुहरबन्द लिफाफे अलग-अलग सभी आवश्यक कागजातों के साथ डाले जाएंगे।
6. निविदादाता पूर्व में कार्य नहीं करने अथवा आपूर्ति में अनिमितता बरते जाने के आरोप में काली सूची में नहीं डाले गए हैं, इसका शपथ पत्र देना होगा।
7. निविदा में भाग लेने हेतु नमूना प्रदर्शित करना अनिवार्य होगा। बिना नमूना के निविदा पर विचार नहीं किया जाएगा।
8. उपकरणों की आपूर्ति आदेश निर्गत होने के 30 दिनों के अन्दर करना होगा, जिसके लिए अलग से कोई परिवहन एवं हथालन व्यय देय नहीं होगा।
9. निविदा के साथ अग्रधन के रूप में 20000/- (बीस हजार रुपये मात्र) का बैंक ड्राफ्ट जो जिला शिक्षा पदाधिकारी, सिमडेगा के नाम से हो, देय होगा।
10. किसी निविदा को आंशिक या पूर्ण रूप से स्वीकार करने अथवा रद्द करने का अधिकार क्रय समिति को सुरक्षित होगा।
11. निविदादाता को लघु अथवा अन्य उद्योग प्रमाण पत्र, वाणिज्य कर निबंधन प्रमाण पत्र, वाणिज्य कर अनापत्ति प्रमाण पत्र, आयकर प्रमाण पत्र, अन्य प्रासंगिक कागजात यथा आधार संख्या/पैन संख्या/खाता संख्या संलग्न करने होंगे।
12. निविदादाता को संबंधित क्षेत्र के मान्यता प्राप्त विद्यालयों/संस्थाओं में कार्य अनुभव का प्रमाण पत्र संलग्न करना अनिवार्य होगा।
13. सामग्रियों/मॉडल के संबंध में जानकारी सिमडेगा जिले के वेबसाईट simdega.nic.in पर देखा जा सकता है।



सचिव,

जिला शिक्षा पदाधिकारी –सह-
जिला कार्यक्रम समन्वयक,
राष्ट्रीय माध्यमिक शिक्षा अभियान,
सिमडेगा।



अध्यक्ष,
क्षेत्रीय शिक्षा उपनिदेशक,
दक्षिणी छोटानागपुर प्रमण्डल,
राँची।

Science Centre Product List

SL. No.	Name of the Exhibits	Concepts Explained	Application(s)	Model's Size
1	Law of Inertia	Newton's First Law, Force, Inertia, Gravitational force	When a bus suddenly starts (tend to fall backward), When moving bus suddenly stops(thrown forward)	Base 9"x 3.5" Height 8.5"
2	Art of Concentration	How sensor works, Concentration skills	Light Sensor, Motion Sensor, Distance Sensor	Base 8" x 8" Height 1"
3	Persistence of Vision (parrot cage model)	Persistence of vision, Perception of motion, After image	Computer monitors, Cartoon animation, A two-dimensional POV display is accomplished by rapidly moving a single	Base 3" x 4" Height 8" Top 3"x4" Parrot Plate =4" x 6.5"
4	Newton's disc	Properties of white light, Dispersion of light	Important discovery It proves that light is not colourless but has colour in it which together converge to give a faded white colour which we consider colorless	Base 120mm x 120mm Height 9" x 1.5" circle 3 x 6"
5	Floating Magnet	Properties of magnet, Repulsion of magnet	Maglev Trains operate without wheel in Japan, Computer Disk, Credit and Debit Cards, Industrial Sorter.	Base Circle 6" x 6", Height 7"
6	Pythagoras Theorem	Pythagoras theorem, Square of hypotenuse	Missile trajectory, Geologist (for finding center or source of earthquake), NASA (to trace spacecrafts)	Base 5.5" deep1" Height 11" x 10.5"
7	Resonance	Mechanical Resonance Frequency, Oscillations, Wavelengths, Vibrational Frequency, length and frequency relation	Medical trajectory, Geologist (for finding center or source of earthquake), NASA (to trace spacecrafts)	Base 20mm x 15" H" 15"
8	Kaledoscope	Multiple reflections, Reflection symmetry, Image patterns (symmetric pattern), Light reflection	Attorneys and dentists have been known to keep them in their office and waiting rooms to calm nervous or ontentious clients, Children Toys, Exhibition Center	Base 8" 70mm x 2.5" Pipe + 2" x 5.5" Pipe
9	Periscope	Laws of reflection, Angle of reflection, Incident ray, Reflected Ray, Rectilinear propagation of light	Tanks, Submarines, Used for viewing the interiors of nuclear reactors, Trench Periscope	Base 4" x 34" h4", 3" x 34" Pipe
10	Pin hole camera	Rectilinear propagation of light, Inverted image, Light Ray	Solargraphy (to captur solar eclipse), Overhead projector, Surveillance	Base open size 12" x 4" height 4", 4" x 6" 1 box, 3.5" x 8" 1 box
11	Maxwell's wheel	Momentum, conservation of energy, Torque Gravitational potential energy and kinetic energy, Rotation and linear velocity	Momentum, conservation of energy, Torque Gravitational potential energy and kinetic energy, Rotation and linear velocity	Base 6" x 10" H. 18"
12	Loop-the-Loop Track	Transformation of PE into KE, Gravitational pull, centrifugal force	Games (Hot wheels Set)	Base 7" x 20" H. 10"

Science Centre Product List

SL. No.	Name of the Exhibits	Concepts Explained	Application(s)	Model's Size
13	DNA structure	Shows DNA helix with illuminated strands and A-T, P-C joints shown in different colours	Anatomy	Base 5" x 5" Height 14"
14	Hand pump	During the intake stroke the inlet valve opens the cylinder volume is increased	Industrial, Marine, Irrigation, Leisure activities	Base tab 10" x 6", 50mm x 12" pipe, 18mm rod Height 18"
15	Magnetic field Tube	Water drawn , Pressure, Gravitational force, Valve system	Water drawn , Pressure Gravitational force, Valve system	Base 2" x 2" Height 10" Pipe
16	Solar energy demo (Light and Fan)	Solar energy, Light, Heat, Conversion of electricity, Photovoltaic cells, Semi-conductor	Solar water heater, Outside Lighting with Solar power, Pumping with Solar energy	Base 5" x 95mm, Height 9"
17	Simple Motor	Electromagnetism	Electromagnetism	Base 5" x 3" Height 4"
18	Zoetrope	Illusion of motion, Illusion	To creat animated GIFs and for video display technologies such as streaming video	Base 10" x 10" Height 6.5", 9.5 x 9.5 Circle, h 5"
19	Delay in speech (your own echo)	Properties of sound, Length and distance, Mouth to ear mechanism, Sound hearing relation	Properties of sound, Length and distance, Mouth to ear mechanism, Sound hearing relation	Base 12" x 12" Height 12" Top 3" x 9", 10mm rod 12"
20	Archimedes Screw	Simple machine, Screw, Displacement	Irrigating crops, Lifting water from mines and ship bilges, Modern industrial pumps	Base 5" x 12" Height 8"/5"
21	Circle and Ball	Newton's first law of motion, Law of inertia	Newton's first law of motion, Law of inertia	Base 10" x 10" Height 3" Top circle 9.5 x 9.5 x h 2.5
22	Infinity images	Reflection of parallel surfaces	Reflection of parallel surfaces	Base 7" x 3" Height 7"
23	Elliptical carom board	Ellipse, Elements of ellipse, Properties of ellipse	Reflective Property of an Ellipse, Sum of distances from both foci to any point on perimeter is constant, Acoustic	Base 16" x 12" Height 2"
24	Types of Waveform	Wave formation, Longitudinal waves, Transverse wave, Compression	Speakers, Vibration in gases, Oscillations in spring, Seismic primary waves travel through internal of earth, Internal water waves, Sound waves	Base 6" x 12" Height 22" Top 12"
25	Glow in the dark	Phosphorescence chemical property	Glow in the dark toys, paint, Clock dials, Study led to the discovery of radioactivityin 1896	Base 4" x 7" x 2" Height 7"
26	Wind mill	Electricity generator, wind energy, wind speed	Modern windmills, wind power, pumping water, grinding grains, etc	Base 5" x 10" Height 7", 3" x 3" X h5" Box 2 nos
27	pendulum	period of oscillation, length of pendulum, distance of swing, periodic motion, pendulum motion	Rides in fairs, amusement park, pendulum in clock, Dowsing	Base 6" x 12" H. 19"

Science Centre Product List

SL. No.	Name of the Exhibits	Concepts Explained	Application(s)	Model's Size
28	Motion sensor	How sensor works, Hydraulic works, Air pressure, Air volume	How sensor works, Hydraulic works, Air pressure, Air volume	Base 6" x 4" x h 2.5" Height 7"
29	Density tubes	Liquid viscosity, Rate of fall	Liquid viscosity, Rate of fall	Base 16" x 4" haif height 4.5" full height 9.5", 2"x9" pipe 3 nos
30	Mechanical Advantage Using Lever	Law of lever, force	See Saw (Kid's play), Hammer Claw (nail removal), Scissors, Pliers	Base 5" x 11" H 4" top 15 x 4" = 3 nos
31	Rock and minerals	Rocks and minerals, Identification and getting familiarize with different type of rocks and minerals	Rocks and minerals, Identification and getting familiarize with different type of rocks and minerals	Base 10" x 14" Height 2.5"
32	Newton's Cradle	Conservation of momentum, Conservation of energy, Action, Force	Executive toy	Base 18" x 8" H 17" Top 10" x 18"
33	Floating Fan	Bernoulli's principle, speed of air, pressure of air, Floation. Relation between speed and pressure of air, Airflow, Air current	Air flight, Baseball, Draft	Base 5" x 5" Height 12" Pipe
34	Tower of Pisa	Centre of gravity, Gravitational force, Stable equilibrium	Centre of gravity, Gravitational force, Stable equilibrium	Base 9" x 9" Height 12", 17mm x 20mm rod 4 nos, 1" x 9" side bar 8 nos
35	colour shadow	Colour light, colour mixtures, Shadow	Colour light, colour mixtures, Shadow	Base 12" x 10" Height 10" Light box 2" x 10" x 2.2"
36	Human Body	Human torso with option of removing and putting the organ back	Human torso with option of removing and putting the organ back	2 feet x 2.5 feet
37	Kidney Model	A setup showing the working of kidney system	A setup showing the working of kidney system	2 feet x 1 feet
38	Eye Model	Puzzle based eye model showing various parts and functions	Puzzle based eye model showing various parts and functions	1 feet x 1 feet
39	Ear Model	Structure based model showing various parts and function of ear	Structure based model showing various parts and function of ear	1 feet x 1 feet
40	Cell Structure	Model showing cell structure and its parts	Model showing cell structure and its parts	1 feet x 1 feet
41	Blood Group Test	Teacher can demonstrate blood group	Teacher can demonstrate blood group	1.5 feet x 1.5 feet
42	Electrolysis of Water	A setup showing breakdown of water in oxygen and hydrogen	A setup showing breakdown of water in oxygen and hydrogen	1 feet x 1 feet
43	Volcano	A setup showing the volcanic eruption and other phenomena	A setup showing the volcanic eruption and other phenomena	1 feet x 1 feet

Science Centre Product List

SL. No.	Name of the Exhibits	Concepts Explained	Application(s)	Model's Size
44	Earth Model	A model showing eco system	A model showing eco system	2 feet x 2 feet
45	Layers of soil	A setup showing various layers of soils	A setup showing various layers of soils	1 feet x 1 feet
46	Bio Pesticides	Representation of various bio pesticides	Representation of various bio pesticides	1 feet x 1 feet
47	Hydro Turbine	Generating electricity by flowing water using pelton wheel mechanism	Generating electricity by flowing water using pelton wheel mechanism	2.5 feet x 2.5 feet
48	Solar power system	With pannel, controller and battery setup	With pannel, controller and battery setup	2' x 2'
49	Maglev	Magnetic levitation train and propulsion via fan	Magnetic levitation train and propulsion via fan	2' x 1'
50	Infinity Well	5 cm depth is converted into infinite depth via multiple reflection	5 cm depth is converted into infinite depth via multiple reflection	2' x 2'
51	Magnetic crane	Magnetic effect of electric current.	To lift heavy objects made of Iron or Steel.	12" x 10" x 8"
52	Electric quiz Board	Electric circuit	To increase curiosity and check the knowledge	12" x 24"
53	Vaccum Cleaner (Home made)	Creation of low pressure	To remove dust	18" x 4" x 4"
54	Rain Gauge	Height of water level show the magnitude of rain fall.	To measure the rain fall	6" x 6" X 18"
55	Measurement of height of objects (clinometer)	Trigonometry to measure height	To measure the height of Trees, buildings etc.	12" x 6" x 20"
56	Coloured Liquids with different densities in a circular glass case	Liquids with different densities cannot be intermixed	High density liquid remains at base and lightest liquid at the top	Circular Glass with 1.5' radius
57	Human Skeleton Model	Human bones and its joints.	To know about our skeleton.	4 feet x 1.5 feet
58	LED Based Heart System	Explanation of various parts of heart and their usage in LED format	Explanation of various parts of heart and their usage in LED format	2 feet x 1 feet
59	LED Based Brain System	LED Based Explanation of every part of the brain	LED Based Explanation of every part of the brain	2 feet x 1 feet
60	Sound in different Medium	A setup showing how sounds travel in different mediums	A setup showing how sounds travel in different mediums	1' x 1'