



Elaine R. Magtoto
 Elaine R. Magtoto
 METRO MOBILIA's Witness

PROJECT: Mass Production and Supply of Science and Mathematics Equipment Packages to Public Elementary for Grades 1 to 3 & Grades 4 to 6, Public Junior High School for Grades 7 to 10 and Public Senior High School for Grades 11 to 12 (Core and Stem)

CONTRACT NO.: 2021-BLR4(001to006)-BV-CB-009-137

CONTRACT AGREEMENT

THIS AGREEMENT made and entered into this 27 day of August 2021 by and between **DEPARTMENT OF EDUCATION**, located at DepEd Complex, Meralco Avenue, Pasig City, Philippines, represented herein by its Secretary, **LEONOR MAGTOLIS BRIONES**, as per Department Order No. 023, s. 2021 (hereinafter referred to as "DEPED"); and **METRO MOBILIA CORPORATION** represented herein by its Authorized Representative, **ENERO P. MAGTOTO**, with office address at 7th Floor, Asian Star Bldg., ASEAN Drive Corner Singapura Lane, Filinvest City, Alabang, Muntinlupa City, Metro Manila, Philippines (hereinafter referred to as "METRO MOBILIA").

DEPED and METRO MOBILIA are collectively called "PARTIES."

WHEREAS, DEPED invited bids for the mass production and supply of Science and Mathematics Equipment Packages consisting of sixteen (16) Lots and received bids from eight (8) bidders; DEPED opened, read, and evaluated the bids of the eight (8) bidders and declared METRO MOBILIA as having the lowest calculated bid for Lot No. 15; after evaluation, DEPED post-qualified and declared the bid of METRO MOBILIA as the lowest calculated responsive bid for Lot No. 15 in the sum of **PHILIPPINE PESOS ONE HUNDRED SIXTEEN MILLION, TWO HUNDRED EIGHTY-TWO THOUSAND, FIVE HUNDRED and 61/100 (PhP 116,282,500.61) ONLY**, (hereinafter called the "Contract Price") detailed as follows:

Lot No.	Description	Amount (PhP)
15	POWERED: TOOLS, INSTRUMENTS AND DEVICES (MI-LOT 15)	116,282,500.61

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:


1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

27.08.2021
ORIGINAL SIGNED
CERTIFIED DUPLICATE COPY
 CMDCDC-2021C137-021

ENERO P. MAGTOTO
 ENERO P. MAGTOTO
 METRO MOBILIA

ARIZ DELSON ACAY D. CAWILAN
 ARIZ DELSON ACAY D. CAWILAN
 DEPED's Witness

LEONOR MAGTOLIS BRIONES
 LEONOR MAGTOLIS BRIONES
 Department of Education


Elaine R. Magtoto
METRO MOBILIA's Witness


ENEROP MAGTOTO
METRO MOBILIA


ARIZ DELSON ACAY D. CAWILAN
DEPED's Witness


LEONOR MAGTOLIS BRIONES
Department of Education

2. The following documents as required by the 2016 Revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as part of this Agreement, viz:
 - i. Philippine Bidding Documents (PBD);
 - a. Schedule of Requirements;
 - b. Technical Specifications;
 - c. General and Special Conditions of the Contract;
 - d. Bid Bulletin No. 1 dated June 1, 2021;
 - e. Bid Bulletin No. 2 dated June 4, 2021;
 - f. Bid Bulletin No. 3 dated June 9, 2021; and
 - g. Bid Bulletin No. 4 dated June 15, 2021.
 - ii. **METRO MOBILIA's** bid, including the Eligibility Requirements, Technical and Financial Proposals, and all other documents or statements submitted;
 - iii. Performance Security;
 - iv. Notice of Award of Contract and **METRO MOBILIA's** conforme thereto; and
 - v. Other contract documents required by existing laws and/or DepEd in the PBD. **METRO MOBILIA** agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Order, and Warranty Security, shall form part of the Contract.
3. The goods supplied by **METRO MOBILIA** under this Contract shall be picked-up or hauled by the third-party logistics provider designated by **DEPED**. Risk and title to the goods shall pass from **METRO MOBILIA** to **DEPED** upon receipt and final acceptance at **METRO MOBILIA's** warehouse. However, assembly, installation, start-up and/or commissioning of items, in cases where they are necessary, shall remain to be the responsibility and for the account of **METRO MOBILIA** notwithstanding inspection and acceptance at its warehouse or premises.
4. The goods shall be ready for pick-up or hauling by the third party logistics within **one hundred forty-four (144) calendar days** from receipt of **METRO MOBILIA** of the Notice to Proceed.
5. **METRO MOBILIA** shall post a Performance Security within ten (10) calendar days from receipt of the Notice of Award in the form and amount prescribed therein. The performance security shall be posted in favor of **DEPED**, and shall be forfeited in the event it is established that **METRO MOBILIA** is in default of any of its obligation under this contract. **METRO MOBILIA** shall be responsible for the extension of its performance security and/or undertake to renew its performance security whenever necessary, and without need of prior notice or


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ENERO F. MAGTOTO
METRO MOBILIA


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instruction from the **DEPED**, to ensure that it is in force and effect for the whole duration of the contract and until a Certificate of Final Acceptance is duly issued.

6. The goods supplied under this Contract should conform to and comply with the standards mentioned in Section VI. Schedule of Requirements of the Bidding Documents, as amended by Bid Bulletin Nos. 1, 2, 3 and 4 dated June 1, 2021, June 4, 2021, June 9, 2021 and June 15, 2021, respectively, and must be in accordance with the technical specifications, a copy of which is hereto attached as Annex "A" and made an integral part hereof. Any proposal to deliver items of equivalent, higher or superior technical specifications, in lieu of those of the approved bids or samples shall be discretionary to **DEPED** and is subject to the evaluation and recommendation of the end-user or implementing units and the approval of the herein authorized representative and signatory.
7. Goods with defects or non-compliant with the required specifications during pre-delivery inspection shall be replaced immediately by **METRO MOBILIA**, and replacement items shall be subjected to re-inspection. Goods with defects or non-compliant with the required specifications upon delivery shall be rejected by **DEPED** and replaced by **METRO MOBILIA** in accordance with the warranty provisions in the bidding documents. **DEPED** shall have the option to inspect **METRO MOBILIA's** premises covered by the Contract, at any time or stage of contract implementation, to monitor and assess **METRO MOBILIA's** capacity to discharge its contractual obligations.
8. The procured goods or items contemplated under this Contract shall be inspected by **DEPED** Inspectorate Team prior to pick-up or hauling from **METRO MOBILIA's** warehouse in accordance with the provisions of the Special Conditions of the Contract, the Schedule of Requirements, or otherwise indicated in other parts of the bidding documents.
9. In case **METRO MOBILIA** encounters condition(s) impeding timely delivery of the goods, **METRO MOBILIA** shall promptly notify **DEPED** Procurement Management Service-Contract Management Division (ProcMS-CMD) in writing of such condition(s). As a rule and on account of the emergency nature of this project, no work suspensions and/or contract delivery period extension shall be allowed.
10. The Contract Price shall be paid to **METRO MOBILIA** in accordance with the following disbursement procedures:
 - 10.1. An advance payment not to exceed fifteen percent (15%) of the Contract Price shall be allowed and paid within sixty (60) calendar days from signing of the contract. An irrevocable Letter of Credit or Bank Guarantee of an equivalent amount must be submitted, and shall remain valid until the goods are delivered, and accompanied by a claim for advance payment.


Elaine R. Magtoto
METRO MOBILIA's Witness


ENERIO P. MAGTOTO
METRO MOBILIA


ARIZ DELSON ACAY D. CAWIT
DEPED's Witness


LEONOR MAGTOLIS BRIONES
Department of Education

10.2. **METRO MOBILIA** may submit a request for payment based on Progress Reports which shall be attached to the progress billing and include the following: (i) cumulative quantities of items delivered based on the schedule of deliveries and other relevant terms and conditions of the Contract; (ii) Inspection and Acceptance Reports (IARs), including certification by **METRO MOBILIA**, duly signed and dated by the authorized representative of the **DEPED** indicating that the items have been delivered in accordance with the Contract. Other documents in support of a request for payment may be prescribed by **DEPED** pursuant to existing disbursement, accounting and auditing rules and procedures.

10.3. Subject to the recoupment of the advance payment contemplated in Clause 10.1. above, and retention contemplated in the immediately succeeding clause, payment shall be made to **METRO MOBILIA** within sixty (60) days from submission of the documents specified in SCC Clause 2.2 and other documents as may be prescribed by **DEPED**, in the following manner:

10.3.1. For the initial progress payment, a minimum of twenty-five percent (25%) of the Contract Price shall be paid to **METRO MOBILIA** upon a minimum of twenty-five percent (25%) delivery and acceptance of the items by **DEPED's** authorized representative;

10.3.2. Final payment shall constitute release of the retention money in case of expiry of the warranty period, or whatever is left of it, after it has been called for use under the warranty provision.

11. Payments shall be subject to the "Warranty" provision in the form of either retention money in an amount equivalent to three percent (3%) of every progress payment or a Special Bank Guarantee in the amount equal to three percent (3%) of the Contract Price required under Section 62 of R.A. 9184 and its revised IRR.

11.1. The warranty period of one year, for applicable items as specified in Annex "J" of the bidding documents, shall reckon from the date of issuance of Certificate of Final Acceptance by **DEPED**.

12. **METRO MOBILIA** shall be liable for liquidated damages for the delay in its performance in an amount equal to one-tenth (1/10) of one percent (1%) of the cost of the delayed goods scheduled for delivery, for every day of delay until such goods are finally delivered and accepted by **DEPED**. **DEPED** shall deduct the liquidated damages from any money due or which may become due to **METRO MOBILIA**, or collect from any of the securities or warranties posted by **METRO MOBILIA**, whichever is convenient to **DEPED**. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the Contract Price,


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DEPED may rescind or terminate the Contract, without prejudice to other courses of action and remedies available under the circumstances.

13. The **PARTIES** shall make every effort to resolve amicably and by mutual consultation any and all disputes or differences arising between the Parties in connection with the implementation of the Agreement. Should such dispute not be resolved amicably, it shall be submitted to arbitration in the Philippines according to the provisions of Presidential Decree No. 242 and Executive Order No. 292. Provided, however, that by mutual agreement, the Parties may agree in writing to resort to other alternative modes of dispute resolution.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed in accordance with governing laws on the day and year first above written.

ENERO P. MAGTOTO
ENERO P. MAGTOTO
METRO MOBILIA

SIGNED, SEALED AND DELIVERED BY:

LEONOR MAGTOLIS BRIONES
LEONOR MAGTOLIS BRIONES
Secretary
Department of Education

ENERO P. MAGTOTO
ENERO P. MAGTOTO
Authorized Representative
Metro Mobilia Corporation
P5985221B

ARIZ DELSON ACAY D. CAWILAN
ARIZ DELSON ACAY D. CAWILAN
DEPED's Witness

SIGNED IN THE PRESENCE OF:

ARIZ DELSON ACAY D. CAWILAN
ARIZ DELSON ACAY D. CAWILAN
DEPED's Witness

Elaine R. Magtoto
Elaine R. Magtoto
METRO MOBILIA's Witness

LEONOR MAGTOLIS BRIONES
LEONOR MAGTOLIS BRIONES
Department of Education

CERTIFIED FUNDS AVAILABLE: ₱116,282,500.61

MA. RHUNNA L. CATALAN
MA. RHUNNA L. CATALAN
Chief Accountant

REPUBLIC OF THE PHILIPPINES)
_____, METRO MANILA) S.S

MUNTINLUPA CITY

ACKNOWLEDGMENT

BEFORE ME, a Notary Public in and for _____, Philippines,
this ____ day of _____, 2021 personally appeared:

NAME

GOVERNMENT ISSUED ID
(Number, Issued On, Issued By)

LEONOR MAGTOLIS BRIONES

Department of Education
D0001058A

ENERO P. MAGTOTO

Metro Mobilia Corporation
P5985221B

Known to me and to me known to be the same persons who executed the foregoing instrument and acknowledge to me that the same is the free and voluntary act and deed of the entities which they respectively represent.

The foregoing instrument is a CONTRACT consisting of six (6) pages (exclusive of attachments), including this page on which this acknowledgment is written and signed by the parties hereto and their instrument witness on the left-hand margin of each and every page hereof.

WITNESS MY HAND AND SEAL on the date and place first above written.

Doc. No. 42;
Page No. 10;
Book No. 1110;
Series of 2021.

PATRICIO L. BONCAYAO, JR.
NOTARY PUBLIC
2ND FLOOR, KLC
BLDG. ROTONDA ALABANG, MUNTINLUPA CITY
MCLE COMPLIANCE NO. VI-0008192-04-23-18
IBP LIFETIME NO. 019651-11-08-15. PASAY CITY
PTR NO. 3950937 - 01-04-21
NC20-004 MUNTINLUPA CITY UNTIL 12-31-21
TIN 137-734-581
ROLL NO. 33786
TELL NO. 800-70-16
patricio_boncayao_lawoffice@yahoo.com.ph

E. Magtoto
Elaine P. Magtoto
METRO MOBILIA'S Witness

Ariz Delson Acay D. Cawilan
ARIZ DELSON ACAY D. CAWILAN
DEPED'S Witness

Leonor Magtolis Briones
LEONOR MAGTOLIS BRIONES
Department of Education

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Annex "A"

Lot No. 15. POWERED: TOOLS AND INSTRUMENTS DEVICES

Item No.	Description	Technical Specifications
1	Flashlight with incandescent bulb Quantity: 6,028	<p>Functional Specifications: Used to provide illumination on the surface of a globe model</p> <p>Performance Specifications: Able to provide illumination on the surface of a globe model</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Powered by two (2) 1.5 volts size D dry cells; Capacity: 3 volts 2. 7" long 3. push button 5. 35 feet beam distance 6. Body: high impact resin construction 7. Metromobilia
2	Lamp, Desk, Heavy Base Quantity: 11,395	<p>Functional Specifications: Used to provide heat and illumination on specimen under study</p> <p>Performance Specifications: Able to provide heat and illumination on specimen under study</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Heavy base, able to stand by itself 2. 35 inches length minimum 3. Easily adjustable to direct the light wherever you need it the most 4. With On and Off Switch 5. Power source: AC 220 volts line; 90 Watts Yellow Light bulb 6. Capacity: 100 watts 7. Grounded, with adapter. 8. With English User's Manual that includes Operation Guide 9. Branded
3	Engine Model (Internal Combustion) Quantity: 335	<p>Functional Specifications: Used to simulate the operation of a 4-stroke cycle gasoline engine</p> <p>Performance Specifications: Able to simulate the operation of a 4-stroke cycle gasoline engine</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Cross section model of a 4-stroke cycle gasoline

		<p>engine model, Size: 15 inches x 8 inches x 7 inches</p> <p>2. Material: cast alloy construction, mounted on stable base</p> <p>3. Internal sections in different colors to indicate air, fuel, and gas mixtures and exhaust gas contents. The carburetor is shown in section.</p> <p>4. The crankshaft can be rotated by hand wheel to simulate the operating cycle of 4-stroke cycle gasoline engine; with electrical contact for illuminating a 3-volt lamp as spark plug to simulate ignition</p> <p>5. Base with illustration and correct part names and show the following parts correctly: crank case, crank shaft, connecting rod, cylinder block, piston, intake valve, exhaust valve, push rod, spark plug, rocker arm, exhaust manifold, crank shaft gear, cam shaft gear, cam shaft, contact point, carburetor, needle valve, float, throttle valve, intake manifold</p>
4	<p>Mirror Set, acrylic</p> <p>Quantity: 11,730</p>	<p>Functional Specifications: Used to demonstrate the formation of image by reflection of light</p> <p>Performance Specifications: Able to demonstrate the formation of image by reflection of light</p> <p>Design Specifications:</p> <p>1. Set of 3 spherical mirrors, acrylic, secured in compartmentalized storage box with the following types and diameters:</p> <p>a) 1-plane mirror, 50 mm</p> <p>b) 1-concave mirror, 50 mm</p> <p>c) 1-convex mirror, 50 mm</p> <p>2. All mirrors free from sharp edges;</p> <p>3. Clear and no sign of cloudiness</p> <p>4. Reflect expected image/s of light source on screen.</p>
5	<p>Strobe Light</p> <p>Quantity: 3,545</p>	<p>Functional Specifications: Used to provide flashes of light so that position of fast moving objects can be recorded for example by a camera</p> <p>Performance Specifications: Able to provide flashes of light so that position of fast moving objects can be recorded for example by a camera</p> <p>Design Specifications:</p> <p>1. Light source: High-output white LED (350 mA, 1W max.)</p> <p>2. Variable frequency range: 2.5 Hz-250 Hz, steplessly</p>

		<p>variable</p> <p>3. Light emission pulse width: 4 range selector, push button fine tune control.</p> <p>4. Power source: Rechargeable alkaline/li-ion/li-po batteries with corresponding charger (both included in package) AND/OR unit operates directly from DC adapter (to be included)</p> <p>5. Dimensions: 100 mm x 85 mm x 48 mm</p> <p>6. With RCA female terminal and male RCA plug with connectors for connecting to frequency meter</p> <p>7. With English User's Manual that includes operation guide</p>
6	<p>Microscope, Digital</p> <p>Quantity: 709</p>	<p>Functional Specifications: Used to focus specimen with the image viewed through the LCD screen.</p> <p>Performance Specifications: Able to show the structure of subcellular organelles.</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Triple nosepiece with 4x, 10x, 40x achromatic objectives and click stop 2. The camera sensor acts as 10x eyepiece lens, yielding 40x, 100x, and 400x powers 3. Four x (4x)digital zoom for magnification up to 1600x 4. LED Illumination type with adjustable wheels at base: 6 position, red, blue, green and 1, 3, 6 mm aperture 5. With top and bottom illumination location 6. 220V; 50/60 Hz power source 7. Battery options, 4AA 8. Fully adjustable mechanical stage 3.5" x 3.5" with metal clips 9. Multiple on wheel stage diaphragm 10. CMOS 5 MP sensor eyepiece type 11. N.A. 65 Condenser 12. With 180° rotating LCD screen 13. Combination of smooth-finished metal and plastic parts 14. Has full color 3.5" TFT LCD screen with onboard software 15. Supports up to 32G Memory size 16. AC Plug (power) SD Card (32G max) Port(s) In 17. With TV output for display on large monitors for classroom or at the laboratory 18. Dimensions: 6.7" x 5.5" x 13" (170mm x 140mm x 330mm)

		<p>19. Comes with training video in USB on the use, care, and maintenance</p> <p>20. Warranty on Parts and Labor: 2 years</p> <p>21. With User's Manual with the diagram of correct microscope parts; function of each part; operation guide; cleaning and troubleshooting instructions.</p> <p>22. Manual details:</p> <p>a. Material: Inside pages: 70 lbs Book Paper; Cover: Foldcote Cal#15</p> <p>b. Size: 6.5 inches x 8.5 inches Fold 13 inches x 8.5 inches Spread</p> <p>c. Binding: Saddle Staple</p> <p>d. Font type: Arial and Font size (min.): 10</p> <p>e. Written in AMERICAN ENGLISH WITH CORRECT GRAMMAR, SPELLING AND PUNCTUATION.</p> <p>f. Pictures used shall be in full color</p> <p>23. Accessories included:</p> <p>a. 2GB micro SD card</p> <p>b. USB 2.0 Cable (data transfer)</p> <p>c. with dust cover</p> <p>d. With Rugged canvass carrying case with shoulder strap</p> <p>e. With Five (5) prepared slides</p> <p>f. 4-plug international AC adapter</p> <p>g. With AV out cable for viewing on a TV or projector</p>
7	<p>Centrifuge</p> <p>Quantity: 67</p>	<p>Functional Specifications: Used as one of the separation techniques for mixtures and compounds when the density difference between the particles and liquid is great, the particles are large, and the liquid viscosity is low. Separates blood at 3300 rpm and can be slowed down to separate other fluids at lower G forces such as urine specimens</p> <p>Performance Specifications: Able to separate mixtures and compounds based on density difference between the particles and liquid is great, the particles are large, and the liquid viscosity is low. Separates blood at 3300 rpm and can be slowed down to separate other fluids at lower G forces such as urine specimens</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Type: Multiselect able speed 2. Shape: Irregular 3. Material: Non-toxic plastic with the following dimensions:

	<p>a) Height : 9 1/2 inches b) Width: 12 1/2 inches c) Depth: 14 inches 4. Color finish: White/gray 5. With Angled rotor, 8-Place Centrifuge with Timer 6. With Lid safety shut-off switch 7. Holds 3 mL to 15 mL size tubes 8. With 12 volt DC maintenance-free motor 9. Nominal speed: 900 -3300 RPM ($\pm 5\%$) 10. Nominal RCF : 1,327 g 12. Maximum volume : 120 mL 13. Fuse: 3 amp/ 250 volts 14. Maximum speed : 3,500 rpm with variable speed control. (blood, urine, etc) 15. Clear view port in lid 15. Suction-cupped feet to prevent slipping 16. With multiple timer setting with bell 17. With power cord 18. Power supply : 110/220 v , with auto-switching power adapter 19. Certification: CE approved 20. Includes the following:: a). Eight-place tube rotor b) Eight 15ml tube sleeves c) Eight 13 x 75 mm tube sleeve inserts d) Eight 15mL round bottom plastic centrifuge tubes with screw cap with white or black print graduations e) Eight 13 x 75mm round bottom plastic centrifuge tubes with screw cap 21. Placed in bubble wrap, enclosed in polystyrene and individually packed in sturdy box 22. With Operations Manual and Assembly Guide in English 23 With sample activity sheets in English 24. For numbers #22 to 23; technical specifications a-e were followed: a) For Contents List of materials, In Table form b) for User's Manual, Instruction Sheets/ Assembly Guides, In sentences format i) With sentences grammatically correct and ii) With correct spelling and terminologies, punctuations and others c) In original print, not photocopied d) In colored pictures, drawings/illustrations e) in ten (10) mil laminated keycard that shall contain the</p>
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		<p>actual colored picture of the model including the name: labeled with the required parts with details as follows</p> <ul style="list-style-type: none"> i) Paper Size : A4 size , 80 gsm ii) Font: Times New Roman iii) Font size: 12 iv) Margins on all sides with 2 point width border line v) Line with arrow head of 1.25 point with width shall point to the specifi part being labeled <p>24. Comes with training on the installation,use, care, proper storage and repair and maintenance Branded</p>
8	<p>Electrical Conductivity (Conductivity of Solutions) Apparatus</p> <p>Quantity: 11,730</p>	<p>Functional Specifications: Used as a visual demonstration of the electrical conductivity of various liquids/solutions.</p> <p>Performance Specifications: Visually demonstrate the electrical conductivity of various liquids/solutions</p> <ul style="list-style-type: none"> a) electrolyte - conducts electricity or b) non-electrolyte - does not conduct electricity . <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Shape : Cylindrical jar with flat bottom 2. Material of jar: clear, hard, transparent, and bubble free plastic containing the liquid to be tested, with the following dimensions: <ul style="list-style-type: none"> a) Diameter: 75mm b) Height: 80 mm 3. Capacity of jar/container: 200 mL 4. It comes with a jar cover whcih perfectly fits the glass jar <ul style="list-style-type: none"> a) Material of jar cover: Polyvinyl carbonate (PVC) b) Color of jar cover: Green 5.It consists of an electric lamp (3.0 V) in series with open electrodes 6. It comes with a molded lamp socket <ul style="list-style-type: none"> a) Material of a molded lamp socket: Plastic 7. It comes with one (1) pc bulb <ul style="list-style-type: none"> a) Type of bulb: Miniature type b) Voltage: 2.5 volts c) Number of extra light bulbs : Ten (10) pc 8.With two (2) binding posts for connection to two wire connectors 9. With two (2) electrodes, which fit inside the glass jar, internally connected to the lamp circuit, namely: <ul style="list-style-type: none"> a) a copper wire (anode) and

		<p>b) a carbon rod (cathode)</p> <p>10. Length of electrodes : 100 mm</p> <p>11. First power source: 9V battery</p> <p>12. With 1 pc 9V battery holder</p> <p>13. Not Comes with second power source: 220 V -240 V AC input)/ (0-12 V) DC output, comes with switch selector</p> <p>14. Comes with two (2) connecting wires (1 red, 1 black) with alligator clips (1 red, 1 black) soldered on one end of the wire</p> <p>a) Length of wire: 12 "</p> <p>b) Type of wire: Stranded</p> <p>c) Gauge number : 20</p> <p>15. Comes complete with a Carton, PE Sheets/foam storage box to help prevent glass breakage.</p> <p>16. Free from breakage, cracks, chipped rims and other defects</p> <p>17. With Operations Manual and Assembly Guide in English</p> <p>18. With sample activity guide/sheets/Teacher's Manual in English</p> <p>19. For For numbers #17 to 18; the technical specifications a-e were followed:</p> <p>a) For Contents List of materials, In Table form</p> <p>b) for User's Manual, Instruction Sheets/ Assembly Guides, In sentences format</p> <p>i) With sentences grammatically correct and</p> <p>ii) With correct spelling and terminologies, punctuations and others</p> <p>c) In original print, not photocopied</p> <p>d) In colored pictures, drawings/illustrations</p> <p>e) in ten (10) mil laminatedkeycard that shall containthe actual colored picture of the model including the name: labeled with the required parts with details as follows</p> <p>i) Paper Size : A4 size , 80 gsm</p> <p>ii) Font: Times New Roman</p> <p>iii) Font size: 12</p> <p>iv) Margins on all sides with 2 point width border line</p> <p>v) Line with arrow head of 1.25 point with width shall point to the specific part being labeled</p> <p>19. Comes with a brand</p>
9	Laboratory Hot Plate with magnetic stirrer	<p>Functional Specifications:</p> <p>a) Used to heat samples, glasswares and its contents, solutions, and substances uniformly with constant stirring , or</p>

	Quantity: 2,346	<p>b) boiling of water c) to sterilize glasswares and other materials uniformly, d) dissolving buffers and reagents with constant stirring e) preparing media, f) concentrating samples and g) to prepare chemicals used in scientific research.</p> <p>Performance Specifications: Able to a) heat samples, glasswares and its contents, solutions, and substances, with constant stirring b) boiling of water c) to sterilize glasswares and other materials uniformly d) dissolving buffers and reagents with constant string e) preparing media, f) concentrating samples and g) to prepare chemicals used in scientific research h) Agitates the liquid to speed up the reaction and mixes components (solid and liquid to get homogeneous mixtures</p> <p>Design Specifications: 1.Type : Digital 2. Top plate Material : Ceramic coated aluminum plate (chemical /acid resistant with the following dimensions: a) Length : 190 mm b) Width : 190 mm 3. Color of top plate : White 4. Material of body : Powder coated cast aluminum with the following dimensions: Length : 355 mm Width : 215 mm Height : 120 mm 5. Color of body: Midnight blue 6. Maximum Operating Temp.: 380 °C 7. Temperature accuracy : ± 0.3 °C at set temperature 8. Stirring capacity: 9. Motor rating: 9/4 W 10. Speed: 80-1500 rpm 11. Control resolutio: 5 rpm 12. Temperature range and accuracy : Max 380 °C 13. Temperature resolution: 0.1 °C for display; ; 0.5 °C control 14. 14. Temperature uniformity: specially designed heating module temperature difference 10 % less 15. Heating power consumption: 600 W</p>
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	<p>16. With digital LCD with backlight display</p> <p>17. With digital feedback controller with joggle shuttle switch(Turn + Push)</p> <p>18. No stirring bar: 3 cm bar included, usable: Up to 5 cm bar</p> <p>19. With over temperature protection</p> <p>20. With power cord, AC Adapter Quick and easy adjustment knob</p> <p>21. Control: Quick and easy adjustment knob</p> <p>22. With safety LEDs to indicate when heating function has been activated</p> <p>23. Power: 220-240 V AC, 50/60 Hz, 800 W</p> <p>24. With built-in support rod mount, thumbscrew, accommodates rods up to 13 mm in dia.</p> <p>25. No Stand rod: Stainless steel, $\Phi = 12$ mm Length: $\Phi 450$mm</p> <p>26. With Thumb screw</p> <p>27. With external direct contact temperature probe with the following dimensions:</p> <p>a) Diameter: 4 mm</p> <p>b) Length: 250 mm</p> <p>c) Cable: 190 mm</p> <p>28. With plug for temperature probe With quick adjustment knob and LED indicator</p> <p>29. With holder/ clamp/clip for temperature probe .</p> <p>Stirring speed up to 1500 rpm</p> <p>30. Includes English User's Manual which consists of the Operating Manual</p> <p>31. With Activity Sheets/Teacher's Manual in English</p> <p>32. For numbers #30 to 31; the technical specifications (a-e) must be followed:</p> <p>a) For Contents/ List of materials, In Table form</p> <p>b) for User's Manual, Instruction Sheets/ Assembly Guides, In sentences format</p> <p>i) With sentences grammatically correct and</p> <p>ii) With correct spelling and terminologies, punctuations and others</p> <p>c) In original print, not photocopied</p> <p>d) In colored pictures, drawings/ illustrations</p> <p>e) in ten (10) mil laminated Assembly Guides that shall contain the actual colored picture of the model including the name: labeled with the required parts with details as follows</p> <p>i) Paper Size : A4 size , 80 gsm</p> <p>ii) Font: Times New Roman</p>
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		<p>iii) Font size: 12</p> <p>iv) Margins on all sides with 2 point width border line</p> <p>v) Line with arrow head of 1.25 point with width shall point to the specific part being labeled</p> <p>Comes with training on the installation, use, care, maintenance and storage</p> <p>32. Comes with a brand</p>
10	<p>Digital Clock, tabletop</p> <p>Quantity: 1,866</p>	<p>Functional Specifications: Used to show/display the time in numerals.</p> <p>Performance Specifications: Able to display hh:mm format.</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Font Height: 34mm; 2. Dry Cell Battery operated (AA) 3. LCD display; Continues 4. Minimum Display: Time (hour, minutes & seconds); 5. Can be set in 12-hour setting; 6. Free from toxic materials (with undertaking); 7. Ready to use and comes with a new battery.
11	<p>Graphing Calculator, non-projectable</p> <p>Quantity: 14,940</p>	<p>Functional Specifications: Used to calculate, graph, and analyze mathematical concepts that has been programmed to it as one of its built-in functions.</p> <p>Performance Specifications: Able to store, calculate, display, graph, input, analyze and interpret data, simple and complex equations/formula, graphs and/or charts using easy access function menus/keys.</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Non-projectable Graphing Calculator; 2. Stores/calculates/displays input data, complex equations and formulas, graph and or chart; 3. Upgradeable operating system. Softwares are accessible via internet and may be downloaded upon receipt of the unit and thereafter; 4. Memory: 26 KB-RAM (minimum) and 450 KB-ROM (minimum); 5. Display size: at least 8 lines x 16 characters per line; 6. Seven (7) different graph styles for differentiating the look of each graph drawn; 7. Easy access function menus; 8. Readily connectable to Personal Computers (comes with connection accessories);

		<p>9. Operates on dry cells. Comes with dry cells and ready to use;</p> <p>10. Comes with user's manual in English containing operation guide of the featured functions and in replacing the battery;</p> <p>11. Must operate as stated above and in the manual; and</p> <p>12. Shinshe Tiyangyan</p> <p>13. Includes training on the use and maintenance.</p>
12	<p>Scientific Calculator</p> <p>Quantity: 194,840</p>	<p>Functional Specifications: Used to show mathematical computations.</p> <p>Performance Specifications: Able to show correct mathematical calculations using its built-in functions/formula.</p> <p>Design Specifications:</p> <p>1. Display: LCD, 2 line(s) X 12 characters, stably shows input-expressions/equation, calculation result, and various indicators;</p> <p>2. Built-in functions not less than 240 inclusion of the following:</p> <p>a) Basic Calculations: arithmetic, fraction, percentage, degrees, minutes, seconds, radian (including conversion of the mentioned Basic Calculations);</p> <p>b) Memory calculation, Logarithm and Hyperbolic functions;</p> <p>c) Statistical functions (e.g.: Statistical relationships, standard deviation, Permutation, Combination, etc.); and</p> <p>d) Trigonometric functions: sin, cos, tan, sin-1, cos-1, tan-1;</p> <p>3. Basic keys and function keys are labeled permanently (resistant to finger rub and light acid (vinegar) contamination) and operates as such correspondingly;</p> <p>4. Power requirement: two way dual (battery, built-in solar system), the unit consistently operational after replacing the battery for three trials, its solar system powers the unit normally in a well lit room without the battery;</p> <p>5. Shinshe Tiyangyan</p>
13	<p>Stopwatch, digital</p> <p>Quantity: 33,685</p>	<p>Functional Specifications: Used to show time elapse in hours, minutes, seconds.</p> <p>Performance Specifications: Able to show time elapsed in hours, minutes and seconds.</p>

		<p>Design Specifications:</p> <ol style="list-style-type: none">1. Digital type, water-resistant (5-bar)2. Start, stop, and re-set operations3. Display Number: 4mm W x 10mm H4. Measure Unit: 1/100th of a second5. Working Range: up to 23hr 59min 59sec6. Individually and properly packed in a box.7. Submitted Instruction Manual in English8. W x H x T: 60mm x 70mm x 20mm9. Ready to use and comes with extra batteries.
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