



Republic of the Philippines
Department of Education
 REGION IX
 SCHOOLS DIVISION OF ZAMBOANGA SIBUGAY

REQUEST FOR QUOTATION

No. : 2023-09-207

September 19, 2023

Date

To: All Eligible Bidders

1. Please quote your lowest price inclusive of VAT on the items listed below, subject to the Terms and Conditions of this RFQ. Submit your quotation duly signed by your authorized representative at the DepEd Division of Zamboanga Sibugay, Pangi, Ipil, Zamboanga Sibugay not later than 25 SEP 2023. Receipt of at least one (1) of this quotation is sufficient to proceed with the evaluation.
2. Term and Conditions
 - a. All entries must be READABLE/ TYPEWRITTEN.
 - b. Please fill up the blank section/ columns (Unit price, total price including the grand total).
 - d. Price validity must be within sixty (60) calendar days.
Note: Mayor's Permit and Tax Clearance must be duly authenticated or certified true copy by issuing Agency and PhilGEPS Certification.
 - e. Warranty shall be for a period of six (6) months for supplies and materials, one (1) year for equipment and other services from date of acceptance by the procuring entity.

FAILURE TO DO SO WILL MEAN DISQUALIFICATION OF YOUR BID PROPOSAL

3. Quotation that exceeds the Approved Budget for the Contract (ABC) shall be automatically disqualified.


AURELIO A. SANTISAS
 BAC Chairman

Note: The Head of the Procuring Entity reserves the right to review the quotation of the bidders and reject any and all bids, declare the failure of the procurement process at any time prior to the contract award or not to award the contract pursuant to existing guidelines, without incurring any liability.

Please return in sealed envelope and indicate the RFO number.

Item No.	Unit	Item Specification	Quantity	Unit Price	Total Price
	pcs	Lamp, Desk, Heavy Base	35 in. length min.	60	
	pcs	Musical Instrument (Miniature Guitar)	mini acoustic type, half size guitar, varnish, Overall length: 33 in., Width: 12 in., depth: 3 1/2 in, standard guitar steel strings (Nos. 1-6), 18 fret min.	60	
	set	Set of tools:		12	
		Ball Peen Hammer	handle length is 11", 350g approx. weight, 1 pc/set		
		Mechanical Wire Cutter and Pliers	6.5", 1 pair/set, chrome vanadium material		
		Precision Screwdrivers Set	6 pcs/set (3 philipps, 3 flats) with plastic casing, 1 set		
		Screwdrivers Flat	3/16 in. tips width x 6 in. long, chrome vanadium material, 1 pc/set		
		Soldering Iron	60 watts, small type, wooden handle, 1 pc/set		
		Soldering Lead	1 mm, grade 60/40, wt: 1 lb/spool, 1 spool/set		
		Soldering Paste	50 grams/can, all purpose flux, non-corrosive		
		Tweezers Stainless Steel with curve tips	6 1/2 in. long, 1 pair/set		
	pcs	Beaker Borosilicate (1000 ml)	1000 mL, griffin type, transparent, bubble-free glass, thickness range: 1.5 mm to 2.0 mm, Height range: 140 mm to 160 mm	60	
	pcs	Petri Dish	reusable, circular glass with beaded edge, glass thickness range 2 mm to 2.2 mm,	60	
	box	Glass Cover Slips 100's/box	100's/small plastic box, Dimension: 22 mmx22 mm square, Thickness: 0.13 mm-0.17 mm	120	
	box	Glass Slides 72's/box	clear, flat glass, no color, no frost, Dimension: 75 mm x 25 mm	120	
	pcs	Protractor, student type	plastic, transparent, semi-circular, 180°	480	

	pcs	Ruler plastics 12in/30 cm	plastic, transparent, 1mm thick (min.),clear, readable black, non-groove permanent prints, bendable up to U-shape	480		
	pcs	Beaker Borosilicate (100 ml)	Griffin, low form, cylindrical container with straight sides, flat bottom w/ small spout, H: 70 mm-72 mm, Thickness: 1.5 mm-2.0 mm	60		
	pcs	Beaker Borosilicate (500 ml)	Berzellius, tall form cylindrical container with straight sides, flat bottom w/ small spout, H: 136 mm-140 mm, Thickness: 1.5mm-2.0mm	60		
	pcs	Cork Borers	long, hollow round rod/tube with sharpened ends, Material: Nickel-plated steel borer with red color handle, a set of 6 different sizes: 4mm, 4.5mm, 6mm, 8mm, 9.5mm, 11mm	12		
	pcs	Flask, Volumetric (250 ml)	Class A, roundor pear-shaped bulb, long thin neck topped by snap cap with flat bottom, clear, transparent, Heavy duty rim, H: 225mm, Snap Cap: No. 250,	60		
	pcs	Nichrome Wire 0.4 100 ft.	Soft, rust-free wire, round wire, Nichrome-Alloy of Nickel and chromium, Ni80 Cr20, Diameter:0.4 mm, length: 100 ft	12		
	pcs	pH meter, hand held	portable hand held digital pen type, plastic, length: 6.2 in., width: 1.5 in., Height: 1.3 in., retractable electrode	60		
	pcs	Rubber Stopper #6 for Erlenmayer flask (1 hole)	Cylindrical with tapered bottom end, Premium grade SBR black rubber compound, H: 25mm, Top: 32 mm, Bottom: 26 mm, Hole: 5 mm,	60		
	pcs	Triangular File Fine 6 inch	6 in. long, High Carbon Steel, fine and smooth with plastic handle	60		
	pack	Universal pH paper, Ph 0-14, 100 strips/pack	100 strips/pack, rectangle, cellulose/paper based, Length: 69 mm x 6 mm,	12		
		nothing follows				
	ABC	111,135.26			TOTAL	
Purpose:	<i>Learning tools and equipment in Science and Mathematics for Public Elementary, Junior and Senior High School-charged to OSEC- 9-23-2442</i>					
	<i>This is to submit our price quotation indicated above subject to the terms and conditions of this RFQ</i>					
Suppliers Company Name:				Date:		
Address:				Tel. No.:		
TIN Number:				Cell. No.:		
Supplier's Signature Over Printed Name:				Email Add:		
				Fax No.:		



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Republic of the Philippines
Department of Education

Bureau of Learning Resources



**Annex "B" - Technical Specifications for LTE-SM
 (FY 2023)**

Project Title Mass Production and Supply of Science and Mathematics Equipment Packages to Public Elementary Schools for Grades 1 to 3 & Grades 4 to 6, Public Junior High Schools for Grades 7 to 10, and Public Senior High School for Grades 11 to 12 (CORE & STEM)

General Specification

1. Must be branded.
2. Must be free from toxic materials.
3. Must be properly packed.
4. Must be accompanied by a User's Manual written in English with correct grammar, spelling, and punctuation marks.
5. "Imported products should pass international quality control product standards and have international quality control product markings such as ASQC, AFCIQ, ASQ, DGQ, EOQC, IQA, CE, ISO, ASTM, and the likes, while locally made products (Philippine-made) should pass the local quality control product standards and bear the PS mark."

Detailed Specification

Item	DESCRIPTION
1	<p>Lamp, Desk, Heavy Base</p> <p>Functional Specifications: Used to provide heat and illumination on specimen under study</p> <p>Performance Specifications: Should be 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; included with 60-100 Watts Yellow Light bulb 6. Capacity: 100 watts 7. Preferable ungrounded plug (If the plug is grounded, an adapter should include in the item.)

Detailed Specification

Item	DESCRIPTION	
		8. With English User's Manual that includes Operation Guide 9. Should be branded
2	Beaker, Plastic 500 mL	<p>Functional Specifications: Used to contain liquids and allow liquids to flow thru spout when overfilled</p> <p>Performance Specifications: Should be able to contain liquids and allow liquids to flow thru spout when overfilled</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Material: polypropylene plastic 2. Capacity: 500 mL Increments: 10 mL 3. Height: 12 cm 4. Diameter: 8 cm 5. Must have container box. 6. Must be free from any toxic material.
3	Dry Cell, 9 volts	<p>Functional Specifications: Used to provide 9 volts DC power to digital multimeter</p> <p>Performance Specifications: Should be able to provide 9 volts DC power to digital multi meter</p> <p>Design Specifications: 1. industry standard 9 volts dry cell</p>
4	Musical Instrument (Miniature Guitar)	<p>Functional Specifications: Used to demonstrate musical application of standing waves</p> <p>Performance Specifications: Should be able to demonstrate musical application of standing waves</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Mini acoustic type, half-size guitar, any color, surface finish: varnish 2. Made of good quality wood without sign of warp 3. Minimum dimensions: Overall length: 33 inches, Width:12 inches, Depth: 3 1/2 inches 4. Standard guitar steel strings (Nos. 1-6), 18 fret minimum
5	SET OF TOOLS:	
5	Set of Tools: Ball Peen Hammer, handle length is 11", 350g approx. weight, 1 pc/set	<p>Functional Specifications: Used to peen dent surfaces in metals</p> <p>Performance Specifications: Should be able to to peen dent surfaces in metals</p> <p>Design Specifications: Ball Peen Hammer, handle length 11 inches, 350 grams gross weight approx., 1 pc. /set</p>

Detailed Specification

Item	DESCRIPTION	
5	Set of Tools: Long Nose Pliers, 6", 1 pair/set	<p>Functional Specifications: Used to bend tiny solid wire connectors</p> <p>Performance Specifications: Should be able to bend tiny solid wire connectors</p> <p>Design Specifications: Long Nose Pliers with side cutter, 6 inches long, chrome vanadium material, 1 pair/set</p>
5	Set of Tools: Mechanical Wire Cutter and Pliers, 6.5", 1 pair/set	<p>Functional Specifications: Used to bend large wires</p> <p>Performance Specifications: Should be able to bend large wires</p> <p>Design Specifications: Mechanical-Wire Cutter and Pliers, 6 1/2 inches, chrome vanadium material, 1 pair/set</p>
5	Set of Tools: Precision Screwdrivers Set, 6 pcs/set, with plastic casing, 1 set/set	<p>Functional Specifications: Used to drive precision screws</p> <p>Performance Specifications: Should be able to to drive precision screws</p> <p>Design Specifications: Precision Screwdrivers Set, 6 pc. (3 phillips, 3 flats)/set, with plastic casing, 1 set</p>
5	Set of Tools: Screwdriver, flat, 6", 1 pc/set	<p>Functional Specifications: Used to drive flat head screws</p> <p>Performance Specifications: Should be able to drive flat head screws</p> <p>Design Specifications: Screwdriver flat, 3/16 inches tip width x 6 inches long, chrome vanadium material, 1 pc. /set;</p>
5	Set of Tools: Screwdriver, phillips, 6", 1 pc/set	<p>Functional Specifications: Used to drive phillips type screws</p> <p>Performance Specifications: Should be able to drive phillips type screws</p> <p>Design Specifications: Screwdriver, Phillips, Point size blade #3 x 6" long, chrome vanadium material, 1 pc/set;</p>
5	Set of Tools: Soldering Iron, 60 watts, 1 pc/set	<p>Functional Specifications: Used to heat electrical contacts for permanent joints</p> <p>Performance Specifications: Should be able to heat electrical contacts for permanent joints</p> <p>Design Specifications: Soldering Iron, 60 watts, small type, wooden handle, 1 pc. /set;</p>
	Set of Tools: Soldering Lead	<p>Functional Specifications: Used to provided permanent joint for different electrical components</p>

Detailed Specification

Item	DESCRIPTION	
5	Soldering Lead, Ø1mm, Grade 60/40, Wt.: 1 lb/spool, 1 spool/set	<p>Performance Specifications: Used to provided permanent joint for different electrical components</p> <p>Design Specifications: Soldering Lead, Ø 1 mm, Grade 60/40, weight: 1 lb./spool, 1 spool/set</p>
5	Set of Tools: Soldering Paste, 50 grams/can, 1 can/set	<p>Functional Specifications: Used to provide better adhesion of solder lead to electrical joints</p> <p>Performance Specifications: Used to provide better adhesion of solder lead to electrical joints</p> <p>Design Specifications: Soldering Paste, all purpose flux, non-corrosive, 50 grams/can, 1 can/set;</p>
5	Set of Tools: Tweezers, stainless steel, with curved tips, 6.5" long, 1 pair/set	<p>Functional Specifications: Used to hold and pick tiny electronics components</p> <p>Performance Specifications: Used to hold and pick tiny electronics components</p> <p>Design Specifications: Tweezers, stainless steel, with curved tips, 6 1/2 inches long, 1 pair/set;</p>
		<p>Functional Specifications: Used to serve as container for mixing and for heating liquids.</p> <p>Performance Specifications: Must be able to serve as container for mixing and for heating liquids.</p> <p>Design Specifications:</p>
6	Beaker, borosilicate, 1000 mL	<ol style="list-style-type: none"> 1.Griffin type, borosilicate, transparent, bubble-free glass 2. Shape: a cylindrical container with flat bottom 3.Thickness range: 1.5 mm to 2.0 mm 4. Permanent white graduations, with white enamel marking spot 5. Features an easy-pour spout 6. Capacity: 1000 mL; ± 10% enameled onto the glass 7. Single graduated metric scale 8. Graduation starts at 200 mL in 100 mL increments 9. Height range: 140 mm to 160 mm 10. Outside diameter: 100 mm to 110 mm 11. There must be no cracks and sharp parts 12. Safely packed in a compartmentalized box
		<p>Functional Specifications: Used to secure the specimen under study.</p> <p>Performance Specifications: Must be able to secure the specimen under study.</p>

Detailed Specification

Item	DESCRIPTION	
7	Dish, Petri	<p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Reusable, borosilicate, circular glass with beaded edge; 2. Bubble-free, plain surface 3. Outside Diameter of Cover: 100 mm±2 mm; 4. Outside Diameter of Dish: 92 mm ± 2 mm; 5. Overall height with cover (as assembled): 20 mm ± 2 mm 6. Glass thickness range: 2 mm to 2.2 mm 7. There must be no cracks and sharp edges 8. Safely packed in a compartmentalized box
8	Glass Cover Slips, 100's/box	<p>Functional Specifications: Used to secure the wet mount sample specimen.</p> <p>Performance Specifications: Must be able to secure the wet mounted sample specimen.</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Pre-cleaned cover glasses and not sticking from each other 2. Material: Transparent glass 3. Quantity: 100's/small plastic box 4. Dimension: 22 mm x 22 mm square 5. Thickness: 0.13 mm - 0.17 mm 6. There shall be no chipped edges 7. Safely packed in a plastic box
9	Glass Slides, 72's/box	<p>Functional Specifications: Used to contain the specimen for examination under the microscope.</p> <p>Performance Specifications: Must be able to accommodate the specimen subject for examination under the microscope.</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Clear, flat glass; free from moisture, dirt, and film; 2. No color, no frost and no chipped edges 3. Dimension: 75 mm (±1 mm) x 25 mm (± 1 mm); 4. Thickness: 1.1 mm (± 0.1 mm) 5. No sharp edges and pointed corners 6. Packed in a box containing 72 slides with thin paper sheets in between them
		<p>Functional Specifications: Used to measure angles in degrees.</p> <p>Performance Specifications: Must be able to draw/construct and measure angles and arcs up to 180°.</p>

Detailed Specification

Item	DESCRIPTION	
10	Protractor, student-type	<p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Protractor, student-type, plastic, transparent, semi-circular, 180°; 2. Ø150mm (or 75mm radius), 1mm thick (minimum); 3. Angular graduations are in degrees, from 0° to 180°. With two (2) sets of numerals, one reading clockwise and the other reading counterclockwise; 4. Linear graduations are in millimeters, from 0 to 100mm; 5. With a hole at vertex point enough for a fine string to pass through it; 6. Plastic Surface Finish: Smooth, clear, and free from scratches; 7. It must be horizontally level when laid flat on a table - no warping; 8. Comes with a plastic case; and
11	Ruler, Plastic, 12 inches/30 cm	<p>Functional Specifications: Used to measure length and draw straight lines</p> <p>Performance Specifications: Must be able to measure length of objects in flat surfaces up to 30cm in Metric and 12" in English standards of measurement.</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Ruler, plastic, transparent, smooth surface, and 1 mm thick (minimum); 2. Approximate Width x Length: 28 mm x 314 mm; 3. Graduations: Metric graduations on one side while English graduations on the other side: <ul style="list-style-type: none"> *Metric graduations are in centimeters, from 0 cm to 30 cm, with every cm subdivided by 10. *English graduations are in inches, from 0 inches to 12 inches, with every inch subdivided by 16. 4. Clear, readable black, non-groove permanent prints (will not fade and cannot be scratched off); 5. Bendable up to U-shape when held at both ends; and 6. The item shall be free from toxic materials.
		<p>Functional Specifications: Used to contain/hold/prepare solids and liquids during chemical reaction and to heat them over a Bunsen burner's flame up to more than 150°C for normal, standard use service</p> <p>Performance Specifications: Must be able to contain/hold /prepare solids and liquids during chemical reaction up to 100 mL capacity and heats them over a Bunsen burner's flame up to more than 150°C for normal, standard use service</p> <p>Design Specifications:</p>

Detailed Specification

Item	DESCRIPTION
12	<p>Beaker, borosilicate, 100 mL</p> <ol style="list-style-type: none"> 1. Type : Griffin, low form 2. Shape : Cylindrical container with straight sides, a flat bottom, and with a small spout (or "beak") to aid in pouring 3. Material: Borosilicate, clear and transparent bubble-free glass with the following dimensions: <ol style="list-style-type: none"> a) Outside diameter : 50 mm-52 mm b) Height: 70 mm-72 mm c) Thickness : 1.5 mm-2.0 mm 4. Capacity : 100 mL ± 5% etched onto the glass;" 5. Graduation starts at : 20 mL in 10 mL increments. 6. Graduation range : 20 mL to 80 mL 7. With permanent white enamel graduations of approximate volumes, inscriptions 8. With large white marking spot 9. Features an easy-pour spout 10. With single graduated metric scale 11. Can withstand heating up to 200-230°C for normal, standard use service 12. Wrapped in paper, enclosed in bubble wrap, and packed in a compartmentalized box 13. Must be free from breakage, cracks , chipped rims and other defects 14. Comes with a brand, with five (5) years existence in the glass wares industry
13	<p>Beaker, borosilicate, 500 mL</p> <p>Functional Specifications:</p> <ol style="list-style-type: none"> a)Used to contain/hold/prepare solids and liquids during chemical reaction and to heat them over a Bunsen burner's flame up to 150°C for normal, standard use service and b)to serve as a water bath when heating flammable chemicals instead of an open flame to prevent ignition. <p>Performance Specifications:</p> <ol style="list-style-type: none"> a) Must be able to contain/hold /prepare solids and liquids during chemical reaction and heats them over a Bunsen burner's flame up to 150°C for normal, standard use service and to serve as a water bath b) to serve as a water bath when heating flammable chemicals instead of an open flame to prevent ignition. <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Type: Berzellius, tall form 2. Shape: Cylindrical container with straight sides, a flat bottom, with a small spout (or "beak") to aid pouring 3. Material : Borosilicate, clear, bubble free glass , Berzellius. tall form with the following dimensions: <ol style="list-style-type: none"> a) Outside Diameter Range :75 mm- 80 mm b) Height range: 136 mm -140 mm

Detailed Specification

Item	DESCRIPTION	
		<p>c) Thickness :1.5 mm to 2.0 mm</p> <p>4. Capacity :500 mL ; ± 5% etched/embossed onto the glass</p> <p>5. With permanent white enamel graduations of approximate volumes, inscriptions and</p> <p>6. With large white marking spot</p> <p>7. With easy pour spout</p> <p>8. Double graduated metric scale</p> <p>9. Marked to fill: Graduation starts at 50 mL in 50 mL increments</p> <p>10. Marked to empty: Graduation starts at 0 mL in 50 mL increments</p> <p>11. Can withstand heating up to 200-230°C for normal, standard use service</p> <p>12. Wrapped in paper, enclosed in bubble wrap and packed individually in a compartmentalized box</p> <p>13. Must be free from breakage, cracks , chipped rims and other defects</p> <p>14. Comes with a brand, with five (5) years existence in the glass wares industry</p>
14	Cork borer	<p>Functional Specifications: Used to bore or to cut a round hole of six different diameters in a cork/rubber stopper with a steel ramrod/eject rod pushing the removed cork out of the borer</p> <p>Performance Specifications: Must be able to bore or to cut a round hole of six different diameters in a cork or rubber stopper and remove cork out of the borer by pushing it with a steel ramrod/eject rod</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Shape of cork borer : Long, hollow round rod/tube with sharpened ends 2. Material of tube/rod : Nickel-plated steel borer 3. A set of six (6) different diameter sizes:(4 mm, 4.5 mm, 6 mm, 8 mm, 9.5 mm, 11 mm) 4. Comes with a handles which are individually and permanently numbered (1-6) for easy identificationhandle <ol style="list-style-type: none"> a) Shape of handle: T-shaped b) Material of handle : Hard plastic c) Finish: Smooth d)Color of handle: Red 5. Includes a ramrod/eject rod pushing the removed cork out of the borer Material of ramrod/eject rod: Steel 6. Packaging: Resealable plastic pouch 7.Comes with a brand
		<p>Functional Specifications: Used to measure/prepare/contain a precise volume of standard solutions at a certain temperature and precise dilution of solutions up to 250 mL</p>

Detailed Specification

Item	DESCRIPTION
15	Flask, Volumetric, borosilicate 250 mL
	<p>Performance Specifications: Must be able to measure/prepare/contain a precise volume of standard solutions at a certain temperature and precise dilution of solutions up to 250 mL</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Type: Class A 2. Shape : A round or pear-shaped bulb, a long thin neck topped by a snap cap and with flat bottom 3. Material of body: Borosilicate , clear, transparent and bubble-free, glass with the following dimensions: <ol style="list-style-type: none"> a) Height: 225 mm b) Outside diameter : 78 mm (approx.) c) Size: 250 mL d) Tolerance: ± 0.12 mL 4. With heavy duty rim 5. Comes with snap cap <ol style="list-style-type: none"> a) Material of snap cap :High density plastic (polyethylene) b) With octagonal grip c) Snap-cap : No. 250 d) Color of snap cap: Blue 6. Must meet ASTM E- 694 for volumetric ware, ASTM E-542 for calibration of volumetric ware and ASTM E-288 for volumetric flasks. 7. Calibrated "to contain" (marked "TC" or "IN") 8. Manufacturer should be accredited by NIST standards or its equivalent to the country of origin to certify that their items are calibrated. 9. Must be free from breakage, cracks, sharp rims and other defects 10. Packaging : Roll up glassware in newspaper and secure with a piece of masking tape and place in a bubble pouch and individually packed in a sturdy box 11. Comes with a brand, with five (5) years existence in the glasswares industry
	<p>Functional Specifications: Used as a wire loop and heating element on which a metal salt or solid ionic compound is made to adhere into it and is heated to emit a characteristic color on the Bunsen flame to identify the particular metal present in the compound</p>

Detailed Specification

Item	DESCRIPTION
16	<p>Performance Specifications: Must be used as a wire loop on which a metal salt or solid ionic compound is made to adhere to, and is heated to emit a characteristic color on the Bunsen flame to identify the particular metal present in the compound in a laboratory activity, the Flame test</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Shape: Round wire 2. Material of wire: Nichrome-Alloy of nickel and chromium, Ni80 Cr20 with the following dimensions: <ol style="list-style-type: none"> a) AWG size: 26 b) Diameter: 0.4 mm c) Length : 100 ft 3. Form: Soft, rust-free wire 4. Color: Silvery grey 5. Resistance : 2.57 ohms/foot 6. Annealed soft 7. Perfectly tensioned. Zero elongation, scratches, or other flaws. 8. Comes in a spool 9. Packed in a resealable plastic pouch 10. Comes with a brand
	<p>Functional Specifications: To measure the pH of a substance or solution indicating its acidity , being neutral, or its basicity/alkalinity in 0.1 pH readability</p> <p>Performance Specifications: Must be able to measure the pH of each substance/solution in 0.1 pH readability, :</p> <ol style="list-style-type: none"> a) For an acid : pH 0- pH 6.0 b) For basic/alkaline : pH 8.0 to pH 14.0. c) For neutral (distilled water) : pH 7.0 <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Type: Portable hand held digital pen type 2. Material : Plastic with the following dimensions : <ol style="list-style-type: none"> a) Length : 6.2 in (155.45 mm) (min) b) Width : 1.5 in (38.1 mm) (min) c) Height : 1.3 in (33.02 mm) (min) 3. With retractable electrode 4. Comes with one (1) pc protective cap 5. Electrodes extend up to 3.15" (80.01 mm) (min) 6. Waterproof 7. pH range: pH 0 to pH 14

Detailed Specification

Item	DESCRIPTION
17	<p>pH Meter, hand-held</p> <p>8. Accuracy: ± 0.2 pH</p> <p>9. Features a bold LCD display of pH</p> <p>10. With automatic temperature compensation</p> <p>11. Supplied with accessories:</p> <p>a) One (1) bottle pH 7.0 buffer solution Capacity of pH 7.0 buffer solution : 50 mL</p> <p>b) With one (1) pc calibration screwdriver</p> <p>c) One (1) pc 9V battery</p> <p>d) Packed in hard plastic carry case</p> <p>12. Manufacturer should be accredited by NIST standards or its equivalent to the country of origin to certify that their items are calibrated.</p> <p>13. With User's Manual in English</p> <p>14. With Student Worksheets/Teacher's Manual in English</p> <p>15. For numbers 13-14, the following technical specifications from a-e must be followed:</p> <p>a) For Contents List of materials, In Table form</p> <p>b) For User's Manual, Teacher's Guide, StudentWorksheets, 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 keycard 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> <p>iii) Font size: 12</p> <p>iv) Orientation:Portrait</p> <p>v) Margins on all sides with 2 point width border line</p> <p>vi) Line with arrow head of 1.25 point with width shall point to the specific part being labeled</p> <p>16. Must be free from sharp edges</p> <p>17. Must have a brand</p>
	<p>Functional Specifications: Used to seal the openings of narrow mouth 250 mL Erlenmeyer flasks and other laboratory glassware that require a tighter seal or a greater degree of chemical resistance with one 1) hole opening for insertion of a thermometer, glass tubing or stirrer for use during chemical reaction .to prevent leaks, hazards and contamination.</p>

Detailed Specification

Item	DESCRIPTION	
18	Rubber Stopper # 6 for Erlenmeyer Flask (narrow-mouth) 250 mL , 1 hole	<p>Performance Specifications: Must be able to seal the openings of narrow mouth 250 mL Erlenmeyer flasks and other laboratory glassware that require a tighter seal or a greater degree of chemical resistance with one (1) hole opening for insertion of a thermometer, glass tubing or stirrer for use during chemical reaction to prevent leaks, hazards and contamination.</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Shape: Cylindrical with a tapered bottom end 2. Material : Premium grade SBR black rubber compound with the following dimensions: <ol style="list-style-type: none"> a) Height: 25 mm b) Top \varnothing: 32 mm c) Bottom \varnothing : 26 mm d) Hole \varnothing: 5 mm 3. Number of holes :With one (1) hole 4. Dimension tolerance on height, top and bottom diameter : ± 0.5 mm 5. Hardness : 40 ± 5 Duro 6. Packed in resealable plastic bag 7. Comes with a brand
19	Rubber Stopper # 6 for Erlenmeyer Flask (narrow-mouth) 250 mL , 2 holes	<p>Functional Specifications: Used to seal the openings of narrow mouth 250 mL Erlenmeyer flasks and other laboratory glassware that require a tighter seal or a greater degree of chemical resistance with two (2) holes opening for insertion of a thermometer, glass tubing or stirrer for use during chemical reaction to prevent leaks, hazards and contamination.</p> <p>Performance Specifications: Must be able to seal the openings of narrow mouth 250 mL Erlenmeyer flasks and other laboratory glassware that require a tighter seal or a greater degree of chemical resistance with two (2) holes opening for insertion of a thermometer, glass tubing or stirrer for use during chemical reaction to prevent leaks, hazards and contamination.</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Shape: Cylindrical with a tapered bottom end 2. Material : Premium grade SBR black rubber compound with the following dimensions: <ol style="list-style-type: none"> a) Height: 25 mm b) Top \varnothing: 32 mm c) Bottom \varnothing : 26 mm d) Hole \varnothing: 5 mm 3. Number of holes : Two (2) holes 4. Dimension tolerance on height, top and bottom diameter : ± 0.5 mm

Detailed Specification

Item	DESCRIPTION	
		5. Hardness : 40 ± 5 Duro 6. Packed in resealable plastic bag 7. Comes with a brand
20	Triangular File, fine, 6" long, with plastic handle	<p>Functional Specifications: Used to cut the glass tubing</p> <p>Performance Specifications: Must be able to cut the glass tubing</p> <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Type of file: Triangular 2. Shape: Triangular 3. Material: High carbon steel 4. Kind of file: Fine, smooth 5. Length of file: 6" (150-152.4 mm) long 6. Material of handle: Plastic 7. Packed in a resealable pouch 8. Comes with a brand
21	Universal pH Paper, pH 0-14, 100 strips/pack	<p>Functional Specifications: Used as an indicator to determine/measure the pH of substances, whether it is an acid, neutral or a base</p> <p>Performance Specifications: Must be used as an indicator to effect a color change when it is dipped into the different substances to determine/measure the pH of each, through comparison with the pH color chart provided, which corresponds to:</p> <ol style="list-style-type: none"> a) For an acid : pH 0-pH 6; b) For a base : pH 8-pH 14. c) For distilled water : pH 7 <p>Design Specifications:</p> <ol style="list-style-type: none"> 1. Type: Test strips 2. Shape: Rectangle 3. Material: Cellulose/Paper based 4. Dimension of pH strip : <ol style="list-style-type: none"> a) Length : 69 mm x 6 mm 5. Number of colors in indicator test strip: In four colors to test pH values 6. Number of test strips : 100 pc strips 7. Packaging: Clear, transparent box 8. Shape of box: Square 9. With complete color chart for comparison with the color change to get the pH reading of the sample being tested 10. No sharp edges on box



Detailed Specification

Item	DESCRIPTION
	11. Measures pH 0-pH 14 12. Comes with a brand

