



Republic of the Philippines
Department of Education

Bureau of Learning Resources - Cebu

Proposed Sampling Plan

Project Title: Mass Production, Supply, and Delivery of Science and Mathematics Equipment Packages to Public Elementary for Grades 1 to 3 and Grades 4 to 6, Public Junior High Schools for Grades 7 to 10, and Public Senior High Schools for Grades 11 to 12 (Core and STEM) -REBID 2022

A. Schedule of Requirements

Item Number	Description	Quantity for Procurement	Sampling Technique	Sample Size*	AQL	Accept	Reject
I. SCIENCE AND MATHEMATICS EQUIPMENT (MASS PRODUCTION)							
LOT 3: BLR-DEVELOPED STORAGE CABINETS							
1	BLR-developed Storage Cabinet	10,804	Random Sampling	1,080	5%	54	55
II. SCIENCE AND MATHEMATICS EQUIPMENT (MARKET ITEMS)							
LOT 4: CHEMICALS							
1	Benedict's Solution, 100ml/bottle	3,997	Random Sampling	400	5%	20	21
2	Boric Acid, 100 grams / bottle	3,997	Random Sampling	400	5%	20	21
3	Bromothymol Blue	3,222	Random Sampling	322	5%	16	17
4	Calcium Chloride, 100 grams / bottle	3,997	Random Sampling	400	5%	20	21
5	Chemicals Storage Box	3,997	Random Sampling	400	5%	20	21
6	Copper Sulfate, CuSO ₄ , 100 grams / bottle	3,997	Random Sampling	400	5%	20	21
7	Gentian Violet, 100 ml / bottle	3,222	Random Sampling	322	5%	16	17
8	Iodine Solution, 100 ml / bottle	3,350	Random Sampling	335	5%	17	18
9	Magnesium Ribbon, 25 grams, 1 roll	3,997	Random Sampling	400	5%	20	21
10	Manganese Dioxide, 50 grams / bottle	3,997	Random Sampling	400	5%	20	21
11	Microscope's Immersion Oil, 100mL/bottle	3,222	Random Sampling	322	5%	16	17
12	Phenolphthalein, 100 grams/bottle	3,350	Random Sampling	335	5%	17	18
13	Potassium Chloride, 100 grams / bottle	3,997	Random Sampling	400	5%	20	21
14	Potassium Iodide, 100 grams / bottle	3,997	Random Sampling	400	5%	20	21
15	Sodium Hydroxide (Lye), 250 grams/bottle	3,997	Random Sampling	400	5%	20	21
16	Yeast, active dry, 100 grams / bottle	3,222	Random Sampling	322	5%	16	17
17	Zinc Chloride, 100 grams / bottle	3,997	Random Sampling	400	5%	20	21
18	Zinc metal, pellets/mossy, 100 grams / bottle	3,997	Random Sampling	400	5%	20	21
LOT 5: GLASSWARES AND LAB TOOLS							
1	Beaker, borosilicate, 250 mL	37,270	Random Sampling	3,727	5%	186	187
2	Beaker, borosilicate, 50 mL	19,985	Random Sampling	1,999	5%	100	101
3	Burette, 10 mL capacity (acid)	640	Random Sampling	64	5%	3	4
4	Burette, 10 mL capacity (base)	640	Random Sampling	64	5%	3	4
5	Burner, Alcohol, glass, 150 ml. Capacity	37,270	Random Sampling	3,727	5%	186	187
6	Burner, Bunsen	19,985	Random Sampling	1,999	5%	100	101
7	Cork Stopper # 5 (for Ø 16mm test tube)	19,985	Random Sampling	1,999	5%	100	101
8	Crucible with lid/cover	19,985	Random Sampling	1,999	5%	100	101
9	Dish, Evaporating, 75 mL	37,270	Random Sampling	3,727	5%	186	187
10	Distillation set-up: Condenser, Liebig-type	256	Random Sampling	26	5%	1	2
11	Distillation set-up: Distilling Flask, borosilicate, 250ml,	256	Random Sampling	26	5%	1	2
12	Double burette clamp	640	Random Sampling	64	5%	3	4
13	Electrolysis Apparatus, student-type (Brownlee)	19,985	Random Sampling	1,999	5%	100	101

Item Number	Description	Quantity for Procurement	Sampling Technique	Sample Size*	AQL	Accept	Reject
14	Flask, Erlenmeyer, borosilicate, narrow-mouth, 250 mL	74,540	Random Sampling	7,454	5%	373	374
15	Funnel, borosilicate, fluted	37,270	Random Sampling	3,727	5%	186	187
16	Glass Tubing, Ø 6 mm x Ø 4 mm x 1500 mm long	39,970	Random Sampling	3,997	5%	200	201
17	Manometer, Open U-tube	640	Random Sampling	64	5%	3	4
18	Mortar and Pestle, porcelain, 150 mL.	28,615	Random Sampling	2,862	5%	143	144
19	Osmosis Apparatus	640	Random Sampling	64	5%	3	4
20	Pipette, Beral, 1 mL	286,150	Random Sampling	28,615	5%	1,431	1,432
21	Reagent Bottle, narrow-mouth, amber, borosilicate, 250 mL	3,875	Random Sampling	388	5%	19	20
22	Reagent Bottle, wide-mouth, transparent, borosilicate, 250 mL	19,985	Random Sampling	1,999	5%	100	101
23	Rubber Stopper # 0 (for Ø 16mm test tube)	19,985	Random Sampling	1,999	5%	100	101
24	Spoon-spatula, porcelain and glazed	37,270	Random Sampling	3,727	5%	186	187
25	Stirring Rod, Ø 6 mm x 250 mm long	37,270	Random Sampling	3,727	5%	186	187
26	Test tube brush	37,270	Random Sampling	3,727	5%	186	187
27	Test Tube, borosilicate, Ø 16 mm x 150 mm long	372,700	Random Sampling	37,270	5%	1,864	1,865
28	Tong, Beaker	3,875	Random Sampling	388	5%	19	20
29	Tong, Crucible	19,985	Random Sampling	1,999	5%	100	101
30	Vial, screw-neck, 25 ml. (with screw-type plastic cap)	186,350	Random Sampling	18,635	5%	932	933
31	Vial, screw-neck, 50 mL. (with screw-type plastic cap)	186,350	Random Sampling	18,635	5%	932	933
32	Watch Glass, Ø 90 mm	37,270	Random Sampling	3,727	5%	186	187
LOT 6: SCIENCE DEVICES, INSTRUMENTS, AND MEASURING TOOLS							
1	Anemometer with Wind Vane, Cup type	6,914	Random Sampling	691	5%	35	36
2	Anemometer, Simple	3,457	Random Sampling	346	5%	17	18
3	Aneroid Barometer Set (Demonstration Type)	33,395	Random Sampling	3,340	5%	167	168
4	Aneroid Barometer, wall-mount	6,679	Random Sampling	668	5%	33	34
5	Balance, Triple Beam, with tare, 2610-gram	16,110	100% inspection	1,611	100%	1,611	1,612
6	Calorimeter	640	Random Sampling	64	5%	3	4
7	Compass, Magnetic	24,740	Random Sampling	2,474	5%	124	125
8	Dissecting Set with pan	640	Random Sampling	64	5%	3	4
9	Filter Paper, crepe	57,230	Random Sampling	5,723	5%	286	287
10	First Aid Kit	1,726	Random Sampling	173	5%	9	10
11	Gloves, Hand, super nitrile	37,270	Random Sampling	3,727	5%	186	187
12	Gloves, Surgical	1,280	Random Sampling	128	5%	6	7
13	Graduated Cylinder, borosilicate, 10 mL	28,615	Random Sampling	2,862	5%	143	144
14	Graduated Cylinder, borosilicate, 100 mL	28,615	Random Sampling	2,862	5%	143	144
15	Graduated pipette with rubber pipettor, borosilicate, 10 mL	640	Random Sampling	64	5%	3	4
16	Hand Lens, 10x magnification	3,875	Random Sampling	388	5%	19	20
17	Hand Lens, 5x magnification	17,925	Random Sampling	1,793	5%	90	91
18	Hexagonal Weigh Dishes Set, 50mL, 500 pcs/pack	3,457	Random Sampling	346	5%	17	18
19	Hydrometer for heavy liquids	640	Random Sampling	64	5%	3	4
20	Hydrometer for light liquids	640	Random Sampling	64	5%	3	4
21	Lens Paper, 50's/pack	16,110	Random Sampling	1,611	5%	81	82
22	Microscope, Compound with 4 Objectives	64,440	Random Sampling	6,444	5%	322	323
23	Prepared Slide Set, Microscope, 25 pieces	3,997	Random Sampling	400	5%	20	21
24	Prepared Slide Set, Mitosis and Meiosis	3,222	Random Sampling	322	5%	16	17
25	Reaction Plates with 6 Wells	19,985	Random Sampling	1,999	5%	100	101
26	Safety Goggles, polycarbonate	37,270	Random Sampling	3,727	5%	186	187
27	Sedimentator Tube	3,875	Random Sampling	388	5%	19	20
28	Sling Psychrometer	8,630	Random Sampling	863	5%	43	44

Item Number	Description	Quantity for Procurement	Sampling Technique	Sample Size*	AQL	Accept	Reject
29	Soil/Test Sieve*	1,726	Random Sampling	173	5%	9	10
30	Wash Bottle, plastic, 250 mL	37,270	Random Sampling	3,727	5%	186	187
LOT 7: SCIENCE POWERED DEVICES AND INSTRUMENTS							
1	Balance, Toploading, Electronic	775	100% inspection	78	100%	78	79
2	Centrifuge	128	100% inspection	13	100%	13	14
3	Electrical Conductivity (Conductivity of Solutions) Apparatus	16,750	100% inspection	1,675	100%	1,675	1,676
4	Laboratory Hot Plate with magnetic stirrer	3,350	100% inspection	335	100%	335	336
5	Microscope, Digital	775	100% inspection	78	100%	78	79
6	Soil pH, Moisture, Sunlight Meter	3,875	100% inspection	388	100%	388	389
7	Telescope, Astronomical (Reflecting)	775	100% inspection	78	100%	78	79
LOT 8: MATHEMATICAL MANIPULATIVES							
1	Algebra Tile Set, plastic	3,222	Random Sampling	322	5%	16	17
2	Base Ten Blocks	17,285	Random Sampling	1,729	5%	86	87
3	Beads, Ø16mm	1,731	Random Sampling	173	5%	9	10
4	Circle Area Demonstrator	3,457	Random Sampling	346	5%	17	18
5	Compass, Drawing, student type	267,160	Random Sampling	26,716	5%	1,336	1,337
6	Cuisenaire Rods, 250 pcs/set	3,457	Random Sampling	346	5%	17	18
7	Elapsed Time (Clock) Set	1,731	Random Sampling	173	5%	9	10
8	Geoboard, 11 x 11	66,790	Random Sampling	6,679	5%	334	335
9	Geoboard, 5 x 5	34,570	Random Sampling	3,457	5%	173	174
10	Geostrips	33,395	Random Sampling	3,340	5%	167	168
11	Ghost Grid Whiteboard, Mobile Magnetic, 72-inch x 40-inch	22,892	Random Sampling	2,289	5%	114	115
12	Linking Cubes	17,285	Random Sampling	1,729	5%	86	87
13	Model, Basic 3D Geometrical Collapsible	8,630	Random Sampling	863	5%	43	44
14	Model, Basic 3D Geometrical Solids	3,457	Random Sampling	346	5%	17	18
15	Pattern Blocks, 250 pcs/set	6,914	Random Sampling	691	5%	35	36
16	Pentominoes	17,285	Random Sampling	1,729	5%	86	87
17	Plastic Two-colored Counters, 1-inch diameter, 200 pcs/set	8,655	Random Sampling	866	5%	43	44
18	Probability Kit	6,679	Random Sampling	668	5%	33	34
19	Tangrams, set of 30	6,679	Random Sampling	668	5%	33	34
LOT 9: MATHEMATICAL TOOLS & INSTRUMENT							
1	Balance, Double-pan, 500-gram	17,285	100% inspection	1,729	5%	86	87
2	Blackboard Triangle, 30° x 60° and 45° x 45°	4,948	Random Sampling	495	5%	25	26
3	Calculator, Graphing, non-projectable	19,985	100% inspection	1,999	5%	100	101
4	Calculator, Scientific	228,920	100% inspection	22,892	5%	1,145	1,146
5	Digital Clock, tabletop	1,731	100% inspection	173	5%	9	10
6	Measuring Kit (Volume)	1,731	Random Sampling	173	5%	9	10
7	Meterstick, plastic	133,580	Random Sampling	13,358	5%	668	669
8	Protractor, student-type	267,160	Random Sampling	26,716	5%	1,336	1,337
9	Ruler, Plastic, 12 inches/30 cm	272,280	Random Sampling	27,228	5%	1,361	1,362
10	Scale, Spring, Hanging type	1,731	100% inspection	173	5%	9	10
11	Scale, Weighing, analog, 10 kg. capacity	1,731	100% inspection	173	5%	9	10
12	Scale, Weighing, bathroom-type	1,731	100% inspection	173	5%	9	10
13	Stopwatch, digital	37,270	100% inspection	3,727	5%	186	187
14	Tape Measure, 1.5 meters	133,580	Random Sampling	13,358	5%	668	669
15	Template, shapes	17,285	Random Sampling	1,729	5%	86	87
16	Thermometer, Classroom, wall-mount	1,726	Random Sampling	173	5%	9	10
17	Thermometer, Clinical, digital	8,630	Random Sampling	863	5%	43	44
18	Thermometer, Laboratory type, Alcohol, -20°C to 110°C	37,270	Random Sampling	3,727	5%	186	187
LOT 11: MODELS: THE HUMAN ANATOMY							
1	Model, Animal Cell	3,350	Random Sampling	335	5%	17	18
2	Model, Animal Meiosis	3,350	Random Sampling	335	5%	17	18
3	Model, Animal Mitosis	3,350	Random Sampling	335	5%	17	18
4	Model, DNA	3,222	Random Sampling	322	5%	16	17

Item Number	Description	Quantity for Procurement	Sampling Technique	Sample Size*	AQL	Accept	Reject
5	Model, Human Brain	1,726	Random Sampling	173	5%	9	10
6	Model, Human Circulatory System	4,948	Random Sampling	495	5%	25	26
7	Model, Human Ear	1,731	Random Sampling	173	5%	9	10
8	Model, Human Endocrine System	3,222	Random Sampling	322	5%	16	17
9	Model, Human Eye, 6 parts	1,731	Random Sampling	173	5%	9	10
10	Model, Human Nervous System	4,948	Random Sampling	495	5%	25	26
11	Model, Human Nose (Nasal-Throat Anatomy)	1,731	Random Sampling	173	5%	9	10
12	Model, Human Skeleton	1,726	Random Sampling	173	5%	9	10
13	Model, Human Torso	5,723	Random Sampling	572	5%	29	30
14	Model, Lung Demonstration	1,726	Random Sampling	173	5%	9	10
15	Model, Pumping Heart	1,726	Random Sampling	173	5%	9	10
16	Model, Reproductive System, Female (Pelvic Anatomy)	4,948	Random Sampling	495	5%	25	26
17	Model, Reproductive System, Male	4,948	Random Sampling	495	5%	25	26
18	Model, Skin Block	3,457	Random Sampling	346	5%	17	18
LOT 12: MODELS: OTHER BIOLOGICAL STRUCTURES AND SPECIES							
1	Model, Chloroplast	3,350	Random Sampling	335	5%	17	18
2	Model, Invertebrates	1,726	Random Sampling	173	5%	9	10
3	Model, Mitochondrion	3,350	Random Sampling	335	5%	17	18
4	Model, Plant Cell	3,350	Random Sampling	335	5%	17	18
5	Model, Vertebrates	3,457	Random Sampling	346	5%	17	18
6	Protein Synthesis Demonstration Set	3,222	Random Sampling	322	5%	16	17
LOT 13: MODELS: MOLECULAR GEOMETRY							
1	Model, Atomic Orbital Kit	640	Random Sampling	64	5%	3	4
2	Model, Biochemistry Molecular, (262 atom parts)	7,994	Random Sampling	799	5%	40	41
3	Model, Crystal Structures Set (Graphite, diamond, sodium chloride, carbon dioxide)	7,994	Random Sampling	799	5%	40	41
4	Model, Molecular, Inorganic/Organic (307-pc)	7,994	Random Sampling	799	5%	40	41
5	Model, Sublevel Orbitals of the Atom (Quantum)	19,985	Random Sampling	1,999	5%	100	101
6	Model, VSEPR, 14 shapes (50-pc)	19,985	Random Sampling	1,999	5%	100	101
LOT 14: FORCE, MOTION, AND ENERGY KITS							
1	Advanced Electromagnetism Kit	640	Random Sampling	64	5%	3	4
2	Air Blower	128	Random Sampling	13	5%	1	2
3	Archimedes Principle Set	640	Random Sampling	64	5%	3	4
4	Basic Electronics Kit	640	Random Sampling	64	5%	3	4
5	Basic Lens Set, acrylic	16,750	Random Sampling	1,675	5%	84	85
6	Coefficient of Linear Expansion	640	Random Sampling	64	5%	3	4
7	Connector, Black (# 18 copper, AWG stranded) with alligator clip on one end and banana plug on the other end	102,105	Random Sampling	10,211	5%	511	512
8	Connector, Red (# 18 copper, AWG stranded) with alligator clip on one end and banana plug on the other end	102,105	Random Sampling	10,211	5%	511	512
9	Connector, Yellow (# 18 copper, AWG stranded) with alligator clip on one end and banana plug on the other end	67,000	Random Sampling	6,700	5%	335	336
10	DC Ammeter	16,750	Random Sampling	1,675	5%	84	85
11	DC String Vibrator, string included	3,875	Random Sampling	388	5%	19	20
12	DC Voltmeter	16,750	Random Sampling	1,675	5%	84	85
13	Diffraction slits & Diffraction grating Set	16,110	Random Sampling	1,611	5%	81	82
14	Digital Geiger-Muller Counter with radioisotopes samples	128	100% inspection	13	5%	1	2
15	Dry Cell Holder (size D)	136,140	Random Sampling	13,614	5%	681	682
16	Dry Cell, 1.5 volts, size D	136,140	Random Sampling	13,614	5%	681	682
17	Engine Model (Internal Combustion)	640	Random Sampling	64	5%	3	4

Item Number	Description	Quantity for Procurement	Sampling Technique	Sample Size*	AQL	Accept	Reject
18	Flask, Florence, glass, 500 ml	640	Random Sampling	64	5%	3	4
19	Force Table	640	Random Sampling	64	5%	3	4
20	Fuse Holder w/ Fuse	16,750	Random Sampling	1,675	5%	84	85
21	Galvanometer	16,750	Random Sampling	1,675	5%	84	85
22	Helical Spring	16,750	Random Sampling	1,675	5%	84	85
23	Iron Core Rod, non-corrugated	8,630	Random Sampling	863	5%	43	44
24	Lamp, Halogen, Low voltage with table top stand	775	Random Sampling	78	5%	4	5
25	Laser Light	19,985	Random Sampling	1,999	5%	100	101
26	Long Nose Pliers, 6-inch, 1 pair/set	1,726	Random Sampling	173	5%	9	10
27	Magnet Wire	4,948	Random Sampling	495	5%	25	26
28	Manometer, Open U-tube with Nakamura-type Water Pressure Apparatus	640	Random Sampling	64	5%	3	4
29	Miniature Light Bulb	102,105	Random Sampling	10,211	5%	511	512
30	Miniature Light Bulb Holder	102,105	Random Sampling	10,211	5%	511	512
31	Mirror Set, acrylic	16,750	Random Sampling	1,675	5%	84	85
32	Motor-Generator Model Experiment Set	16,750	Random Sampling	1,675	5%	84	85
33	Multimeter, digital	1,280	100% inspection	128	5%	6	7
34	Optical Bench Set	16,750	Random Sampling	1,675	5%	84	85
35	Pair of Bar Magnets	13,358	Random Sampling	1,336	5%	67	68
36	Prism Set	19,985	Random Sampling	1,999	5%	100	101
37	Resistance Board	640	Random Sampling	64	5%	3	4
38	Ring and Ball Apparatus	640	Random Sampling	64	5%	3	4
39	Ripple Tank Set	640	Random Sampling	64	5%	3	4
40	Slinky Coil, metal	16,750	Random Sampling	1,675	5%	84	85
41	Sound Resonance Set: Loud Speaker	640	Random Sampling	64	5%	3	4
42	Sound Resonance Set: Resonance Tube, close-ended	640	Random Sampling	64	5%	3	4
43	Sound Resonance Set: Tone Generator	640	Random Sampling	64	5%	3	4
44	Strobe Light	3,875	Random Sampling	388	5%	19	20
45	Switch, Knife type, Single Pole Single Throw	34,035	Random Sampling	3,404	5%	170	171
46	Ticker Timer Set	16,110	Random Sampling	1,611	5%	81	82
47	Toy Car, non-friction, non-battery	8,655	Random Sampling	866	5%	43	44
48	Tuning Fork Set	640	Random Sampling	64	5%	3	4
49	Vacuum Tube and Manual Vacuum Pump	3,875	Random Sampling	388	5%	19	20
		5,162,710					

B. Schedule of Payment

Note:

1. The advance payment - A shall be made in progress payment - Supplier may submit

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

2. Under exceptional circumstances and

Item Number	Description	Quantity for Procurement	Sampling Technique	Sample Size*	AQL	Accept	Reject
-------------	-------------	--------------------------	--------------------	--------------	-----	--------	--------

Prepared by:

Approved by:

GABRIEL MELCHOR J. PEREZ
(SIGNATURE OVER PRINTED NAME)
Designation

RAUL C. LA ROSA
(SIGNATURE OVER PRINTED NAME)
Designation