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DepEd ORDER
No. 89, s. 2011

**GUIDELINES ON THE IMPLEMENTATION OF THE SCIENCE AND MATHEMATICS
EQUIPMENT PROJECT FOR FY 2011**

To : Undersecretaries
Assistant Secretaries
Bureau Directors
Regional Directors
Schools Division/City Superintendents
Heads, Public Elementary and Secondary Schools
All Others Concerned

1. To support the strengthening of Science and Technology Education in basic education, the Department of Education (DepEd), through the National Science Teaching Instrumentation Center (NSTIC) shall distribute packages of Science and Mathematics equipment, including laboratory glassware and storage cabinets, to Special Science Elementary Schools (SSES) and to selected low-performing public elementary and secondary schools.
2. The Science and Mathematics equipment packages that will be distributed to the schools are based on the prescribed list of equipment per DepEd Order No. 118, s. 2009, entitled "*Prescribing the List of Science and Mathematics Equipment, Laboratory Glassware and Consumables for All Year Levels of Elementary and Secondary Schools.*"
3. For Fiscal Year (FY) 2011, a total amount of PhP727,548,000.00 shall be provided for the procurement of the approved Science and Mathematics equipment and storage cabinets, and for the conduct of the trainings.
4. The distribution of the goods shall be focused on the forty-three (43) Special Science Elementary Schools (SSES) and select low-performing elementary and secondary schools in various regions. Schools with average Mean Percentage Scores (MPS) of 35% and below in Science and Mathematics in the National Achievement Test (NAT) for School Year (SY) 2009-2010 will be given priority in the distribution of the equipment. Schools which have available and functional Science and Mathematics equipment will not be included among the recipient schools.
5. To simplify the accounting and inventory of the goods, the NSTIC shall deliver the Science and Mathematics equipment packages to the recipient schools simultaneously.
6. Enclosure No. 1 outlines the regional distribution of recipient schools. Enclosure No. 2 shows the list of Science and Mathematics equipment, including laboratory glassware and cabinets that will be received by each recipient school in the elementary and secondary levels.

7. For inquiries, please contact the following NSTIC personnel: **Mr. Marvin S. Maquilas** or **Engr. Ralph H. Neri** at telephone nos.: (032) 255-3633 to 35 or telefax no.: (032) 255-3005, or send a message through e-mail address: depednstic@yahoo.com.

8. Immediate dissemination of and strict compliance with this Order is directed.


BR. ARMIN A. LUISTRO FSC
Secretary

Encls.:

As stated

Reference: DepEd Order No. 118, s. 2009

To be indicated in the Perpetual Index
under the following subjects:

EQUIPMENT
Learning Area, MATHEMATICS
POLICY
SCHOOLS
SCIENCE EDUCATION

R: Alma/DO guidelines for the implementation of the Science and Mathematics Equipment Project 2011
November 2, 2011

Enclosure to DepEd Order No. 89, s. 2011)
 Department of Education
 DepED-NATIONAL SCIENCE TEACHING INSTRUMENTATION CENTER
REGIONAL DISTRIBUTION OF RECIPIENT SCHOOLS

REGION	PHP 727.5M PROJECT (FY 2011)			
	H.S. SCIENCE I-IV EQUIPMENT AND MATH I-IV EQUIPMENT		ELEM. SCIENCE 1-6 EQUIPMENT AND MATH 1-6 EQUIPMENT	
	NO. OF HIGH SCHOOLS	AMOUNT (PhP)	NO. OF ELEM. SCHOOLS	AMOUNT (PhP)
I	35	39,504,220.00	28	7,891,492.00
II	26	29,345,992.00	26	7,327,814.00
III	40	45,147,680.00	34	9,582,526.00
IV-A	40	45,147,680.00	32	9,018,848.00
IV-B	26	29,345,992.00	21	5,918,619.00
V	40	45,147,680.00	36	10,146,204.00
VI	46	51,919,832.00	38	10,709,882.00
VII	51	57,563,292.00	34	9,582,526.00
VIII	30	33,860,760.00	42	11,837,238.00
IX	25	28,217,300.00	24	6,764,136.00
X	20	22,573,840.00	24	6,764,136.00
XI	20	22,573,840.00	19	5,354,941.00
XII	25	28,217,300.00	19	5,354,941.00
CARAGA	25	28,217,300.00	18	5,073,102.00
ARMM	51	57,563,292.00	24	6,764,136.00
CAR	20	22,573,840.00	18	5,073,102.00
NCR	14	15,801,688.00	5	1,409,195.00
TOTAL	534	602,721,528.00	442	124,572,838.00
GRAND TOTAL (PhP)				727,294,366.00

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(Enclosure No. 2 to DepEd Order No. 89, s. 2011)

Department of Education

NATIONAL SCIENCE TEACHING INSTRUMENTATION CENTER

LIST OF SCIENCE AND MATHEMATICS EQUIPMENT, INCLUDING LABORATORY GLASSWARES AND CABINETS THAT WILL BE RECEIVED BY EACH RECIPIENT SCHOOL IN THE ELEMENTARY AND SECONDARY LEVELS

PARTICULARS			
	ITEMS	Qty per School	Unit of Issue
I. HIGH SCHOOL:			
A. HIGH SCHOOL SCIENCE:			
A.1) Mass Production Items:			
1	NSTIC-developed Basic Science Equipment:		
	1) Stand Base Assembly	10	assy
	2) Stand Support	20	pc
	3) Ring with stem	5	pc
	4) Ø9.5mm x 250mm long Stand Rod	10	pc
	5) Ø9.5mm x 500mm long Stand Rod	20	pc
	6) Ø12.7mm x 1000mm long Stand Rod	5	pc
	7) Multiclamp Assembly	25	assy
	8) Universal Bosshead Assembly	10	assy
	9) Universal Clamp Assembly	12	assy
	10) Test Tube Holder	5	pc
	11) Test Tube Rack	6	pc
	12) Case 001 (with Cover and Base Sheathing)	1	pc
	13) Case 002 (with Cover and Base Sheathing)	1	pc
	14) Case 003 (with Cover and Base Sheathing)	1	pc
	15) User's Manual	1	pc
2	NSTIC-developed Mechanics Science Equipment		
	1) Cart-Rail System (includes Dynamic Carts, Motorized Cart, Rails, etc.)	5	set
	2) Free-Fall Apparatus (includes Solenoid, Pad Switch, Synchro Box, Timer, etc.)	5	set
	3) Hooke's Law Apparatus	5	set
	4) Friction Apparatus	5	set
	5) Lever Assembly	5	assy
	6) Pulley Set:		
	6.1) Double Pulley Assembly	10	assy
	6.2) Single Pulley Assembly	10	assy
	7) Spring Balances:		
	7.1) 10-Newton Spring Balance Assembly	5	assy
	7.2) 5-Newton Spring Balance Assembly	5	assy
	7.3) 2-Newton Spring Balance Assembly	5	assy
	8) C-Clamp with hook	10	pc
	9) Hooked Masses:		
	9.1) 500-gram Hooked Mass	5	pc
	9.2) 250-gram Hooked Mass	10	pc
	9.3) 20-gram Hooked Mass	25	pc
	10) Case 001 (with Cover and Base Sheathing)	5	pc
	11) Case 002 (with Cover and Base Sheathing)	5	pc
	12) Case 003 (with Cover and Base Sheathing)	5	pc
	13) Spare Parts:		
	13.1) Worm with Axle Assembly	5	assy
	13.2) Worm Gear A	10	pc
	13.3) Spur Gear B	10	pc
	13.4) Spur Gear C	5	pc
	14) User's Manual	1	pc
	15) Experiment Module	1	pc
3	NSTIC-developed Thermocline Apparatus	5	pc
4	NSTIC-developed Heat Conductivity Apparatus	5	pc
A.2) Market Items:			
1) Integrated Science:			
1	Aneroid Barometer Set (demonstration type)	1	unit
2	Aneroid Barometer Set (wall type)	1	unit
3	Hand Lens, at least 5x magnification	5	pc

PARTICULARS			
	ITEMS	Qty per School	Unit of Issue
4	Rain Gauge	1	unit
5	Protractor, plastic, 180°, semi-circular, 15cm diameter (minimum)	5	pc
6	Stopwatch, digital	5	pc
7	Balance, Triple-Beam	5	unit
8	Relief Globe, Ø 12 inches	1	unit
9	Bulb, flashlight size, 2.5 V, screw-type	20	pc
10	Bulb Socket, flashlight size, screw-type,	20	pc
11	Penlight, 3 V, plastic case	5	pc
12	Rubber Stopper # 6, with 2 holes	5	pc
13	Rubber Stopper # 1, without holes	5	pc
14	Rubber Stopper # 1, with 1 hole	5	pc
15	Map of World Climates, 36" x 24", tarpaulin	1	unit
16	Map of Philippine Climates, 22" x 35", tarpaulin	1	unit
17	Map of Philippine Volcanoes, 22" x 35", tarpaulin	1	unit
18	Map of Stars, 36" x 36", tarpaulin	1	unit
19	Poster: Layers of the Earth, 28" x 44", tarpaulin	1	unit
20	Poster: The Richter Magnitude Scale, 28" x 44", tarpaulin	1	unit
21	Seismograph Model	1	unit
22	Anemometer with Wind Vane, handheld, digital direct reading	1	unit
23	Magnetic Compass	5	pc
24	AWG # 22 Wire, red, 250mm long with alligator clips at both ends	6	lh
25	AWG # 22 Wire, black, 250mm long with alligator clips at both ends	6	lh
26	AWG # 22 Wire, red, 500mm long with alligator clips at both ends	6	lh
27	AWG # 22 Wire, black, 500mm long with alligator clips at both ends	6	lh
28	Bar Magnet, 6" x 3/4" x 1/4"	5	pc
29	U-shaped Magnet, 3" L x 3" W x 3/4" thick	5	pc
30	Graduated Cup, 200 ml. Capacity, plastic, transparent	5	pc
31	Meterstick, plastic	5	pc
32	Ring and Ball Apparatus	5	unit
33	Glass Rod, solid, Ø 6mm (minimum) x 300mm long (Insulator)	5	pc
34	Plastic Rod, solid, Ø 6mm (minimum) x 300mm long (Insulator)	5	pc
35	Wood Rod, solid, Ø 6mm (minimum) x 300mm long (Insulator)	5	pc
36	Copper Rod, solid, Ø 6mm (minimum) x 300mm long (Conductor)	5	pc
37	Aluminum Rod, solid, Ø 6mm (minimum) x 300mm long (Conductor)	5	pc
38	Steel Rod, solid, Ø 6mm (minimum) x 300mm long (Conductor)	5	pc
39	Sun-Earth-Moon Model	1	unit
40	Solar System Model	1	unit
41	Celestial Globe	1	unit
42	Rock Samples Box, 24 compartments	1	pc
43	Telescope, astronomical	1	unit
44	Bunsen Burner, gas-type	1	unit
45	Tweezer, 6 1/2" long, stainless steel, self-closing, with wood handle & serated jaws	5	pair
46	Laboratory Tong, stainless steel, 8 3/4" long	5	pc
47	Test Tube Brush	5	pc
48	Hand Gloves, acid/solvent-resistant, super nitrile	5	pair
49	Safety Goggles	5	pair
50	Storage Cabinet, 1800 mm x 2000 mm x 500 mm	2	unit
51	Beaker, 250 ml., borosilicate	5	pc
52	Erlenmeyer Flask, 250 ml., borosilicate	5	pc
53	Stirring Rod, Ø 6mm x 250mm long	5	pc
54	Test Tube, Ø 16mm x 150.8mm long	30	pc
55	Glass Tubing, Ø 4mm x 1220mm long	5	lh
56	Vial, Ø 12mm x 75mm long	25	pc
57	Graduated Cylinder, 100 ml. capacity	5	pc
58	Graduated Cylinder, 10 ml. Capacity	5	pc
59	Glass Funnel, Ø 50mm (Top Inside Diameter), 100mm long Stem	5	pc
60	Petri Dish, Ø 100mm (minimum)	5	pc
61	Watch Glass, Ø 100mm (minimum)	5	pc
62	Reagent Bottle, 250 ml. capacity	5	pc
63	Glass Tubes, Hematocrite, 100's/pack (for experiments in capillarity)	1	pack
64	Glass Tube, 3mm OD x 1200mm long (for experiments in capillarity)	5	lh
65	Glass Tube, 6mm OD x 1200mm long (for experiments in capillarity)	5	lh
66	Hydrometer, Specific Gravity: 0.700 - 2.000, 15" long	5	pc
67	Alcohol Thermometer, -20°C to 110°C	10	pc
68	Evaporating Dish, 75 ml. capacity	10	pc
69	Alcohol Burner, glass, 120 ml. Capacity	5	pc

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PARTICULARS			
	ITEMS	Qty per School	Unit of Issue
70	Mortar and Pestle, 300 ml. Capacity	5	set
71	Syringe, 10 ml. Capacity, without needle	5	pc
72	Medicine Dropper, 2 ml. capacity	30	pc
73	Triangular File, 6" long	5	pc
	2) Biology:		
1	Microscope, Compound	20	unit
2	Dissecting Set	5	set
3	Model, Human Torso	1	unit
4	Model, Human Skeleton	1	unit
5	Model, Animal Mitosis	1	unit
6	Model, Animal Meiosis	1	unit
7	Hand Lens, at least 5x magnification	5	pc
8	Balance, Triple-Beam	5	unit
9	Cork Borers, 4mm to 20mm OD, 12 borers/set	1	set
10	Tripod, Height, 6"	5	pc
11	Cork Stopper for Ø 16mm test tube	20	pc
12	Rubber Stopper for Ø 16mm test tube	20	pc
13	Rubber Stopper # 6 with 2 holes	5	pc
14	Filter Paper, ordinary, 24" x 24" sheet	25	sht
15	Litmus Paper Strips, blue, 100's/vial	1	vial
16	Litmus Paper Strips, red, 100's/vial	1	vial
17	Hand Gloves, acid/solvent-resistant, super nitrile	5	pair
18	Baking Soda (NaHCO ₃), 200 grams / bottle	1	bottle
19	Lye (NaOH), pellets, 100 grams / bottle, technical grade	1	bottle
20	Gentian Violet, 100 ml / bottle	1	bottle
21	Iodine Solution, 100 ml / bottle	1	bottle
22	Bromthymol blue, 100 ml / bottle	1	bottle
23	Oil, vegetable, 100 ml / bottle	1	bottle
24	Yeast, powder, 100 grams / bottle	1	bottle
25	Benedict's Solution, 100ml/bottle	1	bottle
26	Plant Cell Chart, tarpaulin, 660mm x 500mm	1	pc
27	Animal Cell Chart, tarpaulin, 660mm x 500mm	1	pc
28	Development of an Embryo Chart, tarpaulin, 660mm x 500mm	1	pc
29	Mendel's Law Charts:		
	29.1) Monohybrid Cross Chart, tarpaulin, 660mm x 500mm	1	pc
	29.2) Dihybrid Cross Chart, tarpaulin, 660mm x 500mm	1	pc
30	Gene Map of the Human Chromosome, tarpaulin, 660mm x 500mm	1	pc
31	Food Pyramid Chart, tarpaulin, 660mm x 500mm	1	pc
32	Flowers and Seed Structure Chart, tarpaulin, 660mm x 500mm	1	pc
33	Safety Goggles	5	pair
34	Storage Cabinet, 1200mm x 600mm x 2000mm	2	unit
35	Test Tube, Ø 16mm x 150mm long	30	pc
36	Evaporating Dish, 75 ml. capacity	10	pc
37	Glass Funnel, Ø 50mm (Top Inside Diameter), 75mm long Stem	5	pc
38	Petri Dish	10	pc
39	Beaker, 250 ml., borosilicate	10	pc
40	Alcohol Thermometer, -20°C to 110°C	5	pc
41	Glass Slides, 100's/box	5	box
42	Glass Cover Slips, 100's/box	5	box
43	Graduated Cylinder, 100 ml., borosilicate	10	pc
44	Erlenmeyer Flask, 250 ml., borosilicate	10	pc
45	Stirring Rod, Ø 6mm x 250mm long	5	pc
46	Alcohol Burner, glass, 120 ml. capacity	5	pc
47	Graduated Cylinder, 10 ml., borosilicate	10	pc
48	Watch Glass, Ø 90mm	10	pc
49	Mortar and Pestle, 300 ml. capacity	5	set
50	Syringe, plastic, 30 ml.	5	pc
51	Wash Bottle, plastic, 250 ml.	10	pc
52	Medicine Dropper, 2 ml. capacity	15	pc
	3) Chemistry:		
1	Alcohol Thermometer, -20°C to 110°C	5	pc
2	Graduated cylinder, 10 ml cap, borosilicate	5	pc
3	Graduated Cylinder, 100 ml., borosilicate*	5	pc
4	Test Tube, Ø16mm x 150mm long	30	pc
5	Wire Gauze, 140mm x 140mm (minimum)	5	pc

PARTICULARS			
	ITEMS	Qty per School	Unit of Issue
6	Stirring Rod, Ø 6mm x 250mm long	5	pc
7	Evaporating Dish, 75 ml. capacity	5	pc
8	Electrolysis Apparatus, Hoffman-type	5	set
9	Alcohol Burner, glass, 60 ml. capacity	5	pc
10	Watch Glass, Ø 90mm	5	pc
11	Distilling Flask, 250 ml.	5	pc
12	Volumetric Flask, 250 ml.	5	pc
13	Erlenmeyer Flask, 250 ml., borosilicate	5	pc
14	Beaker, 500 ml, borosilicate	5	pc
15	Beaker, 250 ml, borosilicate	20	pcs
16	Beaker, 100 ml, borosilicate	5	pc
17	Beaker, 50 ml, borosilicate	10	pc
18	Reagent Bottle, narrow mouth amber color (250 ml. capacity)	5	pc
19	Reagent Bottle, wide mouth colorless (250 ml. capacity)	5	pc
20	Glass Funnel, Ø 50mm (Top Inside Diameter), length of stem: 75mm	5	pc
21	Cork Borers, 4mm to 20mm OD, 12's/set	1	set
22	Burette, 25 ml. Capacity (acid)	1	pc
23	Burette, 25 ml. Capacity (base)	1	pc
24	Glass Tubing, Ø 6mm x Ø 4mm x 1220mm long	1	lh
25	Vial, Ø 6mm x 50mm long	25	pc
26	Hydrometer for light liquids	5	pc
27	Hydrometer for heavy liquids	5	pc
28	Condenser, Liebig-type	1	set
29	Graduated Pipette, 10 ml. Capacity	1	pc
30	Balance, Triple-Beam, 2610-gram capacity	2	unit
31	Spatula, porcelain	5	pc
32	Mortar and Pestle, 150 ml. capacity	5	set
33	Calorimeter	5	pc
34	Bunsen Burner, gas-type	2	unit
35	LPG tank with gas, 11 kg. capacity	1	unit
36	Osmosis Apparatus	1	unit
37	Electrical Conductivity Apparatus	1	unit
38	pH Meter, range: 0 to 14 pH	1	unit
39	Open U-tube Manometer (and Accessories)	1	unit
40	Sulfuric Acid, 500 ml / bottle, technical grade	1	bottle
41	Activated Carbon, 100 grams / bottle	1	bottle
42	Water Ammonia, 100 ml / bottle	1	bottle
43	Boric Acid, 100 grams / bottle	1	bottle
44	Calcium Chloride, 100 grams / bottle	1	bottle
45	Copper Sulfate, CuSO ₄ , 100 grams / bottle	1	bottle
46	Hydrochloric Acid, HCl, technical grade, 500 ml / bottle	1	bottle
47	Lye (NaOH), odorless white semi-transparent solids, 250 grams / bottle	1	bottle
48	Sodium sulfate, 100 grams / bottle	1	bottle
49	Magnesium Ribbon, minimum of 1 meter/roll	1	roll
50	Potassium Iodide, KI, 100 grams / bottle	1	bottle
51	Sulfur Powder, 100 grams / bottle	1	bottle
52	Zinc Chloride, ZnCl ₂ , 100 grams / bottle	1	bottle
53	Zinc Pellets, 100 grams / bottle	1	bottle
54	Ferric chloride, 100 grams / bottle	1	bottle
55	Manganese Dioxide, 50 grams / bottle	1	bottle
56	Ferrous Sulfate, 100 grams / bottle	1	bottle
57	Glycerine, 500 ml / bottle	1	bottle
58	Potassium Chloride, 100 grams / bottle	1	bottle
59	Zinc Nitrate, 100 grams / bottle	1	bottle
60	Lead Nitrate, 100 grams/bottle	1	bottle
61	Ammonium Chloride, 100 grams/bottle	1	bottle
62	Phenolphthalein Indicator, 100 grams/bottle	1	bottle
63	Litmus Paper Strips, blue, 100's/vial	1	vial
64	Litmus Paper Strips, red, 100's/vial	1	vial
65	Universal pH Paper, ph 0-14, 100 strips/pack	1	pack
66	Filter Paper, ordinary, 24" x 24" sheet	25	sht
67	Rubber stopper for Ø 16mm test tube	5	pc
68	Rubber stopper for 250 ml Erlenmeyer flask, with 1 hole	5	pc
69	Rubber stopper for 250 ml Erlenmeyer flask, with 2 holes	5	pc
70	Cork stopper for 250 ml Erlenmeyer flask, with 1 hole	5	pc

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PARTICULARS			
	ITEMS	Qty per School	Unit of Issue
71	Cork stopper for 250 ml Erlenmeyer flask , with 2 holes	5	pc
72	Cork stopper for Ø 16mm test tube	5	pc
73	Chart on Periodic Table of Elements, tarpaulin, 36" x 72"	1	pc
74	Poster on Laboratory Safety Rules, 30" x 40", tarpaulin, wall mount	1	pc
75	Poster on Basic Laboratory Apparatuses, 30" x 40", tarpaulin	1	pc
76	Laser Pointer, dual-function, with dry cells	5	pc
77	Hand Gloves, acid/solvent-resistant, super nitrile	5	pair
78	Safety Goggles	5	pair
79	Test Tube Brush	5	pc
80	Rubber Tube, Ø 10mm x Ø 8mm x 2000 mm long, Latex	5	lengths
81	Syringe, 5 ml. Capacity, plastic	5	pcs
82	Storage Cabinet for corrosive materials	1	unit
83	Storage Cabinet for non-corrosive materials	1	unit
84	Triangular File, 6" long, with handle	5	pc
	4) Physics:		
1	Archimedes Principle Apparatus	5	set
2	Open U-tube Manometer (and Accessories)	1	unit
3	Air Blower, variable speed control	1	unit
4	Miniature Light Bulb, 1.35 to 2.5 V, 0.06 A or greater handling current, 3 pcs/set	5	set
5	Miniature Light Bulb Base (Socket), 3 pcs/set, with baseboard & binding posts	5	set
6	Dry Cell Holder, for single size D dry cell, 4 pcs/set	5	set
7	Set of Connectors:		
	7.1) AWG # 22, black, 300mm long with alligator clip and banana plug on ends	15	pc
	7.2) AWG # 22, red, 300mm long with alligator clip and banana plug on ends	15	pc
	7.3) AWG # 22, white, 300mm long with banana plugs on both ends	10	pc
	7.4) AWG # 22, blue, 300mm long with banana plugs on both ends	10	pc
8	Resistance Box	5	set
9	Switch, knife-type	5	unit
10	DC Ammeter	5	unit
11	DC Voltmeter	5	unit
12	Galvanometer	5	unit
13	Set of Coils	5	set
14	Motor-Generator Model Experiment Set	5	set
15	Set of Tools	1	set
	15.1) Screwdriver, flat, 6"	1	pc
	15.2) Screwdriver, phillips, 6"	1	pc
	15.3) Long Nose Pliers, 6"	1	pr
	15.4) Mechanical Pliers, 6"	1	pr
	15.5) Soldering Iron, 60 watts	1	pc
	15.6) Ball Peen Hammer, length including handle is 11", 300-350 grams	1	pc
	15.7) Precision Screwdrivers Set, 6 pcs, with plastic casing	1	set
	15.8) Tweezers, stainless steel, with curved tips, 6 1/2" long	1	pr
	15.9) Diagonal Cutters, 6"	1	pr
	15.10) Soldering Wire, Ø1mm, Grade 60/40, Wt.: 1 lb/spool	1	spool
	15.11) Soldering Paste, 50 grams/can	1	can
16	Advanced Electromagnetism Kit	5	kit
17	Basic Electronics Kit	5	kit
18	Fuse Holder with Fuse	5	pc
19	Variable Power Supply, AC-DC	5	set
20	Tuning Fork Set (set of 8 tuning forks)	1	set
21	Resonance Tube Set, open-ended	5	set
22	Sound Signal Generator Kit	5	unit
23	Loudspeaker, ≥ 1 watt, all frequency or low range, 4-8 Ohms.	5	unit
24	Slinky Coil, metal, Ø3" x 4" long	5	pc
25	DC String Vibrator with String	1	unit
26	Musical Instrument (Ukulele)	1	unit
27	Basic Lens Set (set of 7 lenses)	5	set
28	Mirror Set (set of 3 mirrors)	5	set
29	Prism , right-angle, acrylic, 28 x 38 x 75mm	5	pc
30	Refraction Blocks (1 set is composed of 1 pc Glass & 1 pc Acrylic)	5	set
31	Refraction Tank	5	unit
32	Student Optical Bench Set with Meterstick	5	set
33	Multimeter	5	unit
34	Beaker, 500 ml., polypropylene plastic	5	pc

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PARTICULARS			
	ITEMS	Qty per School	Unit of Issue
35	Florence Flask, 250 ml., polymethylpentene	5	pc
36	Chart on Electromagnetic Spectrum, 750mm x 1000mm, tarpaulin	1	pc
37	Chart on Radioactive Elements, 1000mm x 1500mm, tarpaulin	1	pc
38	Dry Cell, 1.5 V, size D, ISO Certified	20	pc
39	Dry Cell, 9 V, ISO Certified	5	pc
40	Logic Gates Trainer Kit	5	unit
41	Storage Cabinet	2	unit
42	Balance, Triple-Beam	1	unit
43	Basic Radioactivity Kit	1	set
B. HIGH SCHOOL MATHEMATICS:			
B.1) Mass Production Item:			
1	Spring Balance, 10-Newton	1	pc
B.2) Market Items:			
1) Math 1			
1	Meterstick, plastic	1	pc
2	Push/Pull Steel Tape Rule, 10 meters	5	pc
3	Litre set (1/4, 1/3, 1/2, 2/3, 3/4, & 1 litre measuring cups), plastic	5	set
4	Litre set (Medicine Droppers, 1ml - 5ml)	5	set
5	Utility kitchen/spring scale, 1 kg cap.	1	pc
6	Beam Balance, double platform, 2000-gram capacity	1	unit
7	Sundial	1	pc
8	Model of $(x+y)^3$	1	set
9	Blackboard Protractor, semi-circular, 180°, Ø 600mm, wooden	1	pc
10	Simple Calculator	5	unit
11	Stopwatch, digital	5	unit
12	Thermometer, clinical type, °C and °F scale (dual scale)	10	pc
13	60-minute Hour Glass Timer	1	pc
14	Storage Cabinet, 4-layer	1	unit
2) Math 2			
1	Probability Kit for Binomial Distribution and Pascal's Triangle	1	pc
2	Meterstick, Plastic	1	pc
3	Graphing board, 1m x 1m, green	1	pc
4	Dice, plastic, 25.4mm cube	12	pc
5	Stopwatch, digital	1	unit
6	Scientific Calculator	10	unit
3) Math 3			
1	Geoboard, square and circle, 5 x 5	5	pc
2	Geoboard, square and circle, 11 x 11	5	pc
3	Model of cutout triangle, wood, assorted sizes	1	set
4	Model to show the altitude of Triangle, wood, assorted sizes	1	set
5	Model of angle sum theorem, wood, assorted sizes	1	set
6	Geometrical model set, 3 types of prisms, assorted sizes	10	set
7	Geometrical model set, 3 types of pyramids, assorted sizes	10	set
8	Geometrical model set, 2 types of cones, assorted sizes	10	set
9	Geometrical model set, 2 types of cylinders, assorted sizes	10	set
10	Geometrical model set, Spheres, assorted sizes	10	set
11	Surface area of Geometrical set, collapsible, 3 types of prisms, assorted sizes	10	set
12	Surface area of Geometrical set, collapsible, 3 types of pyramids, assorted sizes	10	set
13	Surface area of Geometrical set, collapsible, 2 types of cones, assorted sizes	10	set
14	Surface area of Geometrical set, collapsible, 2 types of cylinders, assorted sizes	10	set
15	Surface area of Geometrical set, collapsible, Spheres, assorted sizes	10	set
16	Model of Rectangular solid	10	set
17	Model of Pyramid in a prism (volume of pyramid), assorted sizes	1	set
18	Model of Cone in a cylinder (volume of cone), assorted sizes	1	set
19	Model of sphere in a cylinder (vol. of sphere), assorted sizes	1	set
20	Blackboard Compass, 600mm long, wooden	1	pc
21	Blackboard protractor, semi-circular, 180°, Ø 600mm, wooden	1	pc
22	Meterstick, plastic	1	pc
23	Graphing board, 1m x 1m, green	1	pc
24	Storage Cabinet, 4-layer	1	unit
4) Math 4			
1	Blackboard Compass, wooden, 600mm long	1	pc
2	Blackboard protractor, 180°, Ø 600mm, semi-circular, wooden	1	pc
3	Meterstick, plastic	1	pc
4	Graphing board, 1m x 1m, green	1	pc

PARTICULARS			
ITEMS		Qty per School	Unit of Issue
II. ELEMENTARY SCHOOL:			
A. ELEMENTARY SCIENCE:			
1	Air Convection Box	1	sets
2	Alcohol Burner, 120 ml	5	pcs
3	Anemometer with Wind Vane	1	unit
4	Aneroid Barometer	1	set
5	Beam Balance, double platform	5	sets
6	Celestial Globe	1	pcs
7	Human Circulatory System Model	1	set
8	Compound Microscope	1	set
9	Connecting Wires (w/ alligator clips at ends):		
	9.1) AWG # 22 Connecting Wire w/ alligator clips at ends	5	pcs
	9.2) AWG # 22 Connecting Wire w/ alligator clips at ends	5	pcs
	9.3) AWG # 22 Connecting Wire w/ alligator clips at ends	5	pcs
	9.4) AWG # 22 Connecting Wire w/ alligator clips at ends	5	pcs
10	Human Digestive Model	1	pc
11	Dry Cell Holder	5	pcs
12	Cart-Rail System (includes Dynamics Carts, Rails, Motorized Cart, Leveling Pad Assembly, Stopper-Fork Assembly, 50-gram Masses, 3-gram Masses, etc.)	5	sets
13	Human Ear Model	1	pc
14	Human Endocrine Model	1	pc
15	Human Eye Model	1	pc
16	Friction Apparatus	5	sets
17	Safety Googies	5	pcs
18	Hand Lens	5	pcs
19	Heat Conduction Different Metals	5	sets
20	Height Scale	1	pc
21	Inclined Plane Stand		
	21.1) Stand Base Assembly	10	assy
	21.2) Stand Support	10	pcs
	21.3) Multiclamp Assembly	10	assy
	21.4) Ø9.5mm x 500mm long Stand Rod	5	pcs
	21.5) Ø12.7mm x 1000mm long Stand Rod	5	pcs
22	Layers of the Earth Model	1	set
23	Lever Assembly	5	assy
24	Liquid Convection	5	pcs
25	Human Lung and Chest Model	1	pc
26	Magnetic Compass	5	pcs
27	Coral Reefs, Model	1	pc
28	Model of Invertebrates (insects, spiders, worms)	1	set
29	Model of Vertebrates (mammals, birds, reptiles, amphibians, fish)	1	set
30	Mortar and Pestle, porcelain	6	sets
31	Human Mouth and its part model	1	pc
32	Multimeter	1	pc
33	Human Muscular Model	1	pc
34	Human Nervous System Model	1	pc
35	Human Nose Model	1	pc
36	Ordinary Globe	3	pcs
37	Bar Magnets	5	pairs
38	Penlight, 3 V, plastic case	5	pcs
39	Meterstick, plastic	5	pcs
40	Prepared Slides of Algae, moss, etc.	10	specimens
41	Double Pulley Assembly	5	assy
42	Single Pulley Assembly	5	assy
43	Relief/Terrestrial Globe	1	pcs
44	Human Reproductive System Model	1	set
45	Human Respiratory Sytem Model	1	set
46	Rock Samples with box casing	1	set
47	Sand Table	1	pc
48	Human Skeletal System Model	1	set
49	Human Skin Model	1	unit

PARTICULARS			
	ITEMS	Qty per School	Unit of Issue
50	Slinky Coil	6	pcs
51	Specimen of Different Kinds of Soils	5	sets
52	Spring Balance Assembly	5	assy
53	Sun-Earth-Moon Model	1	unit
54	Switch, single-pole, knife-type	3	pcs
55	Telescope, astronomical	1	unit
56	Test Tube Holder	10	pcs
57	Test Tube Rack	5	pcs
58	Human Tongue Model	1	pc
59	Triangular Prism, right-angle, 28mm x 38mm x 75mm	5	pcs
60	Tuning Forks Set	1	set
61	Human Urinary System Model	1	set
62	Weighing Scale	1	unit
63	Wet Cell Kit	1	sets
64	Alcohol Thermometer -20°-110° C	5	pcs
65	Beaker, 250 mL	5	pcs
66	Thermometer, clinical-type, dual scale	3	pcs
67	Medicine Dropper, 2 ml capacity	1	box
68	Glass Funnel, 75mm long Stem	5	pcs
69	Graduated Cylinder, 10 mL	5	pcs
70	Graduated Cylinder, 25 mL	5	pcs
71	Graduated Cylinder, 100 mL	5	pcs
72	Test Tube, 25 mL	30	pcs
73	Flashlight Bulb, 2.5 volts, screw-type	25	pcs
74	Flashlight Bulb Socket, screw-type	25	pcs
75	Glass Slides, 100's/box	1	box
76	Glass Cover Slips, 100's/box	1	box
77	Hand Gloves, acid resistant, super-nitrile	5	pairs
78	Litmus Paper Strips, Blue, 100's/vial	1	vial
79	Litmus Paper Strips, Red, 100's/vial	1	vial
80	Magnet Wire, # 22	0.5	kg
81	Denatured Alcohol	1	gal
82	Iodine Solution	1	litre
83	Chart of Different Weather Conditions	1	pc
84	Chart Phases of the Moon	1	pc
85	Chart of Different Characteristics of Planets in the Solar System	1	pc
86	Chart on Precautionary Measures Before and After a Storm	1	pc
87	Height and Weight Growth Chart	1	pc
88	Map of Philippine Volcanoes, 22" x 35", tarpaulin	1	pc
89	Poster of Astronomical Instruments	1	pc
90	Poster of Cloud Formation	1	pc
91	Poster of Filipino Scientists with their Contribution to Science	1	pc
92	Poster on Laboratory Techniques	1	pc
93	Map of Stars, 36" x 36", tarpaulin,	1	pc
94	Weather Chart, 22" x 35", tarpaulin	1	pc
95	Map of Philippine Climates, 22 x 35", tarpaulin	1	pc
96	Storage Cabinet	1	unit
B. ELEMENTARY MATHEMATICS:			
1	Abacus	20	pcs
2	Building Blocks, different colors	100	pcs
3	Hundreds Board	20	pcs
4	Cuisenaire	20	pcs
5	Dice, big size	2	pcs
6	Dice, standard size (for Student)	20	pcs
7	Domino Set	10	sets
8	Number Blocks (@ 15 pcs/set)	10	sets
9	Number Line Board, blackboard	1	pc
10	Number Line Board, student	5	pcs
11	Addition-Subtraction-Multiplication-Division Wheel	3	pcs
12	Place Value Box (with 4 colors counting bars)	3	pcs
13	Place Value Board	3	pcs
14	Fraction Set	3	sets
15	Fraction Wheel	3	pcs

PARTICULARS			
	ITEMS	Qty per School	Unit of Issue
16	Disectable Decimal Cube Set	10	pcs
17	Tangrams	20	sets
18	Template, shapes	20	pcs
19	Protractor, blackboard, semi-circular, wooden	1	pc
20	Compass, blackboard, wooden	1	pc
21	Geoboard, square on one face & circular on the other face, plastic	20	pcs
22	Cut-out Triangles (Right, Isosceles, & Equilateral)	1	set
23	Solids for spatial figures: Pyramid, Cone, Sphere, Prism, Cylinder	3	sets
24	Collapsible Solids (Pyramid, Cube, Prism)	3	sets
25	Geostrips	10	sets
26	Clock Model, manipulative-type	1	pc
27	Digital Clock, table	1	units
28	Stopwatch, digital	5	pcs
29	Meterstick	5	pcs
30	Right Triangle, 45° x 45° x 90°, blackboard	1	pcs
31	Right Triangle, 30° x 60° x 90°, blackboard	1	pcs
32	Tape Measure	5	pcs
33	Beam Balance, double-platform	5	units
34	Weighing Scale, analog	1	units
35	5-Newton Spring Balance	5	units
36	Square Units, 10 cm x 10 cm (exact measurement)	20	pcs
37	Square Units, 20 cm x 20 cm (exact measurement)	20	pcs
38	Frames of Solids: Cube, Cylinder, and Pyramid	10	sets
39	Box Frame Skeleton with plastic cubes	10	sets
40	Manipulative Electric Meter Model, blackboard	5	pcs
41	Water Meter Board	5	pcs
42	Graphing Board, 1m x 1m, green	1	pcs
43	Simple Calculator (for Teacher)	1	unit
44	Simple Calculator (for Student)	10	units
45	Pocket Chart	1	pc
46	Alcohol Thermometer	10	pcs
47	Graduated Cylinder, 100 ml.	10	pcs
48	Beaker, 500 ml.	10	pcs
49	Graduated Cup	10	pcs
50	Measuring Spoon	10	pcs
51	Plastic Containers (of different sizes)	10	pcs
52	Beads, Ø16mm, colors: white, black, blue, red, & yellow	500	pcs
53	Plastic Sticks, assorted colors	1000	pcs
54	Plastic Chips, Ø 25mm, colors: white, blue, and red	150	pcs
55	Spindles, plastic, colors: white, black, blue, red, & yellow	250	pcs
56	Ruler, 12" or 300 mm capacity	10	pcs
57	Protractor, student, semi-circular, 180°, Ø150mm	10	pcs
58	Flash Cards, operations: Add, Subtract, Multiply, & Divide	12	sets
59	Window Cards, operations: Add, Subtract, Multiply, & Divide	12	sets
60	Number Chart	3	pcs
61	Multiplication Chart	3	pcs
62	Fraction Chart	3	pcs
63	Place Value Chart (Decimal)	3	pcs
64	Conversion Charts, types of measure: linear, mass, area, & volume	2	pcs
65	Storage Cabinet	1	units