

Republic of the Philippines

Department of Education





JUL 1 4 2009

DepED ORDER No. 73, s. 2009

PRESCRIBING THE MINIMUM TOOLS AND EQUIPMENT STANDARDS FOR TECHNICAL-VOCATIONAL PUBLIC HIGH SCHOOLS

To: Undersecretaries
Assistant Secretaries
Bureau Directors
Regional Directors
Schools Division/City Superintendents

Heads/Administrators, Technical-Vocational High Schools

- 1. This is to prescribe the minimum DepED requirement of tools and equipment for various Technical-Vocational laboratories (list enclosed) in the public Tech-Voc High Schools in the country.
- 2. The said set of tools and equipment is the complete enumeration of the minimum DepED standard tools and equipment necessary to effectively implement the Competency-Based Curriculum for the 21 areas of specialization such as: automotive, machining, plumbing, refrigeration and air-conditioning, welding, building construction, computer hardware servicing, electricity, electronics, furniture and cabinet making, food trades, cosmetology, garments, animal production, crop production, food processing, horticulture, fish capture, fish culture, food/fish processing and technical drawing.
- 3. For inquiries, please contact the Tech-Voc Task Force Office at telefax nos.: (02) 633-9346 and (02) 632-0170 or the Office of the Secretary c/o Charlie B. Tayas at tel. nos.: (02) 633-7208 and (02) 636-4876, DepED Complex, Meralco Avenue, Pasig City.

4. Immediate dissemination of and compliance with this Order is directed.

ESLI A LAPUS

Secretary

Encl.: As stated Reference: None

Allotment: 1--(D.O. 50-97)

To be indicated in the <u>Perpetual Index</u> under the following subjects:

EQUIPMENT SCHOOLS

TECHNICAL EDUCATION VOCATIONAL EDUCATION

Technical-Vocational Education

LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT ARTS AND TRADES

AUTOMOTIVE

	Description/Specification	Quantity	Unit
Tools	and Equipment		
Д	Automotive Painting:		
1	-Air compressor, 1 set 1/4Hp	2	
2	-Paint brushes	2	
3	-Paint scraper	1	
4	-Angle grinder	1	
5	-Spray gun w/ 20m hose 1/4"	1	
6	-Applicators	2	
Auto	motive Technology:		
1	-Box wrench (6mm-22mm)	4	
2	-Double open wrench (6mm-22mm)	4	
3	-Spark plug wrench	4	
4	-Flat screw driver set 6"	4	
5	-Philip screw driver set	4	
6	-Adjustable wrench 6"	4	
7	-Adjustable wrench 12"	4	
8	-Long nose pliers	4	
9	-Mechanical pliers slip joint 8"	4	
10	-Socket wrench	4	
11	-Torque wrench, 150lbs	1	
12	-Feeler gauge	1	
13	-Inside retaining ring pliers	1	
14	-Outside retaining ring pliers	1	
15	-Vise grip, 250mm	1	
16	-I type valve spring remover	1	
17	-C type valve spring remover	1	
18	-Valve grinder (manual)	4	
19	-Tire rim wrench 22"	2	
20	-Ignition timing light	2	
21	-Compression tester	2	
22	-Engine analyzer	2	
23	-Valve grinder/ refacer	2	
24	-Battery charger	2	
25	-Coil spring remover	2	
26	-Diesel Engine	2	
27	-Differential (set)	2	
28	-Transmission (set)	2	
29	-Tool Cabinet	2	
30	-Battery cell tester	2	
31	-Battery hydrometer	2	
32	-Tire gauge	2	
33	-Hydraulic jack (5 tons)	2	
34	-Strong arm hydraulic service jack (3 tons)	2	
35	-Wheel aligner (mini)	1	
36	-Pistol grip electric drill 1/2"cap	1	
37	-3 k or 4 k engine (live)	2	
	AFETY EQUIPMENT:		
1	-Fire extinguisherABC type, Dry chem 5kg	2	
2	-Working gloves	10	
3	-Face shield	2	
4	-Safety eye glasses	10	
5	-Dual cartridge natural rubber respirator	2	

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

MACHINING

	Description/Specification	Quantity	Unit
Tools	s and Equipment		
1	-Live center	1	
2	-Vernier caliper	5	
3	-Micrometer	5	
4	-Inside and outside caliper	5	
5	-Tool bit	24	
6	-Cut-off bit	5	
7	-Adjustable wrench, 12"	5	
8	-Double open wrench set 6-22mm	5	
9	-Box wrench set 6-22mm	5	
10	-Vise grip 10"	5	
11	-Table vise	5	
12	-Bench grinder 1/2Hp	3	
13	-Hand hacksaw set	5	
14	-Bench drill press 1/2 Hp 13mm	5	
15	-Surface plate	2	
16	-Steel rule	12	
17	-Ball pein hammer	12	
18	-Auto rewind tape rule	12	
19	-Files (assorted)	4	
20	-Electric arc welding machine (230 amp)	1	
21	-Oxy-acetylene welding machine	2	
22	Taps and Stock and Dies (1 set)	2	
23	Drill bit (1 set)	5	
24	-Tool Cabinet	1	
B. SA	FETY EQUIPMENT and APPARELS:		
1	-Fire extinguisher ABC type, Dry chem 5kg	3	
2	-First aid kit w/ cabinet	1	
3	-Face shield	5	
4	-Safety eye glasses	10	
5	-Welding gloves	5	
6	-Welding aprons	2	
7	-Welding mask	2	

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

PLUMBING

	Description/Specification	Quantity	Unit
Tool	s and Equipment		
1	-Pipe wrench 8",12",18",24" (set)	6	
2	-Pipe Threader 1/4" to 2 1/4 (set)	4	
3	-Ballpen hammer 12 oz.	20	
4	-Hand hacksaw saw trauel w/ blade	12	
5	-Auto rewind tape rule 50m	6	
6	-Pipe vise 1 1/8" to 2 1/2"	4	
7	-Adjustable wrench 12"	4	
8	-Cold chisel 1 1/4" x 6 1/4"	2	
9	-Pipe cutter 1/8 to 2 1/4 cap	2	
10	-C clamp 6"	2	
11	-Pull-push rule 2m	6	
12	-Pipe reamer 1/2" - 2 1/4" cap	4	
13	-Tool Cabinet	1	
14	C-clamp 10"	6	pcs
15	Tape measure (5o m long)	2	pcs
16	Claw Hammer (horse shoe)	6	pcs
17	Sledge Hammer	2	pcs
18	Craw Bar	2	pcs
Safe	ty Equipment		
1	-Fire extinguisher ABC type, Dry chem 5kg	1	
2	-First aid kit w/ cabinet	1	-
3	-Working gloves	8	
4	-Safety eye glasses	4	

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

REFRIGERATION AND AIRCONDITIONING TECHNOLOGY

Descript	on/Specification	Quantity	Unit
Equipment			
1 Air compressor w/ kit se	t	1	Unit
2 Vacuum pump (Robinair	e)	3	Unit
3 Refrigerant Analyzer (po	rtable)	1	Unit
4 Oxy-acetylene welding a	pparatus(Harris)	2	Set
5 Welding Apparatus (SM	AN)	1	Unit
	airconditioner(Carrier) R-22	3	Unit
	rator, 3- leads out(R-12) 4-7cu. ft.	3	Unit
8 1/8 HP Domestic refrige		1	Unit
9 Water cooler/ dispenser,		3	Unit
10 Chest type freezer 1/5HI	P (R-12)	1	Unit
11 Upright freezer 1/6HP (F	R-12)	1	Unit
Tools			
1 Tube cutter		10	Piece
2 Adjustable wrench #8"		4	Piece
3 Adjustable wrench #10"		4	Piece
4 Electrical Pliers		10	Piece
5 Side cutting Pliers		10	Piece
6 Long nose Pliers		10	Piece
7 Hatchet- Ratchet Wrenc	n	4	Piece
8 Vise Grip		4	Piece
9 Open Wrench		3	Set
10 Socket Wrench		3	Set
11 Pinch-off tool		3	Piece
12 Hand Riveter		3	Piece
13 Claw Hammer		3	Piece
14 Rubber Mallet		3	Piece
15 Hacksaw (set)		5	Piece
16 Screwdriver		5	Set
17 Off-set screwdriver		2	Set
18 Tin Snip		3	Piece
19 Allen wrench		3	Set
20 Box wrench		3	Set
21 Flaring/ Swaging tool/ kit		5	Set
22 Swaging Punch kit		5	Set
23 Multi tester		5	Unit
24 Electronic multi tester		2	Unit
25 Clamp on Ammeter teste	r	5	Unit
26 Mapp gas regulator valve		5	Unit
27 Portable blow torch with		2	Unit
28 Electronic leak detector	•	3	Unit
29 Tape measure		5	Piece
30 Soldering iron		5	Piece
31 Manifold gauge		3	Set
32 Electronic thermometer		3	Piece
33 L-square		3	Piece
34 Tri-square		3	Piece
35 Level-bar (1 meter)		3	Piece
36 Half round five		3	Piece
37 Electric drill		2	Unit
Supplies and Materi	als		
1 1/4 Copper tube		3	Roll
2 1/4 Aluminum tube		1	Roll

Technical-Vocational Education

LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

REFRIGERATION AND AIRCONDITIONING TECHNOLOGY

	Description/Specification	Quantity	Unit
3	5/16 Copper tube	3	Roll
4	5/16 Aluminum tube	1	Roll
5	1/8 Rivets	1	Box
6	1/2 Copper tube	1	Roll
	1/8 Capillary tube	5	Roll
	Flare Tube Filter Drier	10	Piece
	# 18 Single line wire(stranded)	2	Roll
	#14 Duplex wire stranded	1	Roll
-	#12 Solid wire	1	Roll
	Sealed Type filter drier	10	Piece
	Airconditioning parallel outlet	10	Set
	Refrigerator circuit outlet	10	Set
	Nuts and bolts	50	Piece
16	Male plug	10	Piece
17	Circuit breaker panel	2	Set
	Circuit breaker 40A	6	Piece
	Soldering lead	1	Roll
	Circuit breaker 60A	6	Piece
21	Silver rod	100	Piece
22	Metal screw	100	Piece
23	Terminal clip male	100	Piece
24	Aluminum Filter	50	Piece
25	Aluminum Flux	1	Can
26	Silver Flux	1	Can
27	Welding rod	1	Box
28	Refrigerant Tank(5k) with refrigerant:		
29	1-R-12 (4K)	1	Piece
30	1-R-134a (4k)	1	Piece
31	1-R-22(4K)	1	Piece
32	1-Nitrogen(4K)	1	Piece
33	Access valve	10	Piece
34	A/C Rotary compressor 1HP	2	Unit
35	Domestic Refrigerator compressor 1/8HP	2	Unit
	A/C Condenser	2	Piece
37	Ref. condenser	2	Piece
	A/C evaporator	2	Piece
39	Ref. evaporator	2	Piece

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

WELDING

	Description/Specification	Quantity	Unit
Tool	s and Equipment		
1	-Electric arc welding machine set (500 amp)	5	
2	-Bench grinder 3/4 hp	3	
3	-Bench vise 5" jaw	3	
4	-Angle grinder 4"	1	
5	-Bench drill 1/2 Hp, 13mm	2	
6	-Cross peen hammer	8	
7	-Pistol grip elec drill 1/2"	2	
8	-Anvil	2	
9	-Oxyaccetelyne welding set	2	
10	-Vise grip (250mm-asst)	4	
11	-Screw driver set	4	
12	-Tinner snip 14"	2	
13	-C-clamp 6"	2	
14	-Auto rewind tape rule	2	
15	-Tool Cabinet	1	
Safe	ty Equipment		
1	-Fire extinguisher ABC type, Dry chem 5kg	4 units	
2	-First aid kit w/ cabinet	1 set	
Safet	ty Apparels		
1	-Welding gloves	8	pair
2	-Welding aprons	4	
3	-Arc welding mask	6	
4	-Gas welding googles	4	
5	-Face shield	4	
6	-Safety eye glasses	8	

Technical-Vocational Education

LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

BUILDING CONSTRUCTION

	Description/Specification	Quantity	Unit
Tools	s and Equipment		
1	Chalkline/Marking Gauge	10	
2	-Auto rewind tape rule (50 m)	5	
3	-Tri-square (Combination Square)	10	
4	-Handsaw 20"	10	
5	-Chisel set (Firmer 1/2" to 2")	12	
6	-Hammer claw 16 oz (Stanley)	5	
7	-Crowbar	5	
8	-Plumb bob	5	
9	-Mason's trowels - pointed	10	
10	-Cement Trowel - rectangular	5	
11	Bar Cutter	2	
12	-Shovel (round point) - Texas	5	
13	-Set of screw drivers (flat and cross)	5	
14	-Spirit level 24"	5	
15	-Wooden Vise	10	
16	-C-Clamp 8"	10	
17	-Spokeshave	10	
18	-Smooth plane (Stanley)	10	
19	-Hand hacksaw (Nickolson)	5	
20	-Hand drill (Rachet Brace)	5	
21	-Electric drill 500w w/ bits	2	
22	-Glass cutter	3	
23	-Portable Planner	2	
24	-Slids Hammer	10	
25	-Bolo (sundang)	5	
26	-Tool Cabinet	1	
Safet	y Equipment		
1	-Fire extinguisher ABC type, Dry chem 5kg	3	
2	-First aid kit w/ cabinet	1	
3	-Working gloves	10	

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

COMPUTER HARDWARE SERVICING

	Description/Specification	Quantit	Unit
Tools	and Equipment		
1	-Multi-tester	10	
2	-Transformer multi-output w/UPS	10	
3	-DC regulated power supply	10	
4	-Connecting cords GA 22 w/ aligator clips both ends	40	
5	-Connecting cords GA 23 w/ banana clips both ends	40	
6	-Bread board	10	
7	-Round nose pliers	10	
8	-Wire cutter	10	
9	-Philips head screw driver 6" st set	10	
10	-Flat head screw driver 6" set	10	
11	-Connecting wire (solid gauge no.22)	40	
12	-Soldering iron 100w	10	
13	-Soldering lead (material)	10	
14	-Desoldering pump	10	
15	-Logic probe	10	
16	-IC remover, cutter	10	8
17	-Tool Cabinet	1	
18	-Router	5	
Hard	lware:		
1	-Memory card	5	pcs
2	-Expansion card	5	pcs
3	-Hard disk	5	pcs
4	-Mother board	5	pcs
5	-Power supply (UPS)	5	pcs
6	-Router	5	pcs
B. S	AFETY EQUIPMENT:		
1	-Fire extinguisher ABC type, Dry Chem 5kg	2	
2	-Screen protector	5	
3	-Automatic voltage regulator	5	

Technical-Vocational Education

LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

ELECTRICITY AND MOTOR REWINDING

Description/Specification	Quantity	Unit
A. TOOLS & EQUIPMENT		
Household Electricity:		
1 Side cutter plier 10" long	12	
2 Combination plier 6" long	12	
3 Long nose pliers 6"	12	
4 Flat screw driver 6"	12	
5 Philips srew driver 6"	12	
6 Analog multi-tester YX 360 TRF (SANWA		
7 Digital clamp meter (5 Amp-200 Amp)	6	
8 Ball peen hammer (32mm diameter)	8	
9 Crimper tools	10	
10 Hacksaw frame & blade	8	
11 Electric drill 500 watts 1/2"	4	
12 Electric angle grinder 4"	4	
13 Megger ohm meter	4	
Motor Rewinding Tools:		
1 Table vise 8" jaw	8	
2 C-clamp 12" opening	4	
3 Rubber hammer 32mm	12	
4 Rubber hammer 50mm	12	
5 Ball peen hammer 50mm	12	
6 Double open wrench (6-22mm)	12	set
7 Box wrench, (6-22mm)	4	set
8 Vise grip, 10"	8	
9 Bearing puller	2	
10 Mechanical piler slip joint 10"	8	
11 Wire gauge (AWG)	2	
12 Internal and external tester	3	
13 Portable rewinder	8	
14 Chain block 1 ton cap.	1	
15 A-frame 1 ton cap.	1	
16 Soldering iron (600w)	8	
17 Table grinder 1/2 Hp	1	
18 Tool Cabinet	1	
19 Pipe Threader 1/2" & 3/4"	2	
20 Conduit Bender 1/2"	1	
21 Conduit Bender 3/4"	2	
22 Magnetic Contactor (s-phase)	3	pcs
23 Motor Control (3-phase)	2	pcs
B. SAFETY EQUIPMENT:		
 -Fire extinguisherABC type, Dry chem 5kg 		
-Working gloves (Rubberized)	10	
3 -Face shield	2	
4 -Safety eye glasses	10	
 5 -Dual cartridge natural rubber respirator 	4	

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

ELECTRONICS

all distribution	Description/Specification	Quantity	Unit
A. T	OOLS & EQUIPMENT		
1	-Multi-tester w/ Hvac	20	
	-Oscilloscope	1	
2	-Radio trainer kit	20	
3	-Philip screw driver set 6"	20	
4	-Flat screw driver set 6"	20	
5	-Solderer set w/ stand	20	
6	-Desolderer	20	
7	-Twizzers	20	
8	-Magnifying glass with lamp	10	
9	-Side cutter plier 8" long	20	
10	-Long nose plier 6"	20	
11	-Wire stripper	20	
12	-Flat file 6"	20	
13	-Triangular file 6"	20	
14	Computer Unit (High End) for cellphone repair	1	
15	Hotair with soldering iron	10	
16	Cellphone kit screw drivers	10	
17	Amplifier Trainer kit	20	
18	Soldering iron	15	
19	Tool Cabinet	1	
20	Bread Board	24	
B. S	AFETY EQUIPMENT:		
1	-Fire extinguisher ABC type, Dry Chem 5 kg	2 units	unit

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

FURNITURE AND CABINET MAKING

	Description/Specification	Quantity	Unit
ndu	strial Hygiene Safety:		
1	Dust collector portable	1	
2	Goggles,safety	50	
3	Gloves, safety	50	
4	Tace shield	50	
5	Dust mask	50	
gui	pment:		
1	Portable planer	2	
2	Router portable	1	
3	Sander	2	
4	Bench grinder	1	
5	Circular saw, portable	1	
6	Band saw	1	
7	Stationary Circular Jaw	1	
8	Drill press	1	
9	Compressor w/ spray gun	1	
10	Electric drill	2	
11	Bracing machine	1	
12	Anvil/Bench vise	12	
13	Radial Arm saw	1	
Tools	s:		
1	Hand drill	12	
2	Claw hammer	25	8
3	Ball pen hammer	25	
4	Try square	25	
5	Framing square	25	
6	Pull push rule	25	
7	Meter square	25	
8	Sliding T-bevel	25	
9	C-clamp	25	
10	Bar-clamp	10	
11	wood chisels	15	set
12	carving tools	5	set
13	Nail set	25	301
14 15	Expansive bit Auger brace	5	
16	auger bits	10	2.24
17	Steel tape	10	set
18	Spirit & level plumb	12	
19	Asstd. Screw driver, ordinary (4"-12")	10	
20	Asstd. Screw driver, philip (4"-12")	10	
21	Set of wrenchs (box)	10	
22	Set of wrenchs (open)	1	
23	Adjustable wrench	6	
24	Blow torch	2	
25	Soldering iron	2	
26	Jack plane	25	
27	Smooth plane	25	
28	Triangular (4",5",6")	25	
29	Oil stones	25	
30	Croass art saw	25	
31			
31	Rip saw	25	

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

FURNITURE AND CABINET MAKING

	Description/Specification	Quantity	Unit
33	Key hole saw	25	
34	Mallet, wooden	25	
35	Mallet, rubber	25	
36	Spokeshave (concave & flat)	25	
37	Wood rasp file	25	
38	Spatula	25	
39	Thickness Planer	-1	
40	Tools Cabinet	1	

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

FOODTRADES

	Description/Specification	Quantity	Unit
EQ	UIPMENT		
1	Heavy duty mixer	1	Set
2	Oven	2	Unit
3	Microwave	2	Unit
4	Grills and griddles	1	Unit
5	Deep fryers	1	Set
6	Food Processors	1	Unit
7	Blenders	2	Piece
8	Electric mixer	1	Unit
9	Slicer	2	Piece
10	Pans/ casserole set	2	Set
	Steamers	1	Set
12	Turbo broilers	1	Unit
13	Convection oven	1	Unit
14	Refrigerator	2	Unit
15	Demonstration table	1	Unit
Το	ols		
1	Decorating tips	2	Set
2	Wire whisk	15	Piece
3	Hand mixer	4	Piece
4	Spatula	5	Piece
5	Scraper (rubber)	20	Set
6	Measuring cup and spoon	10	Set
7	Baking pan (assorted)	15	Piece
8	Mixing bowl (stainless)	15	Piece
9	Wooden laddle	15	Piece
10	Muffin pan	6	Piece
11	Pie plate	6	Piece
12	Tube pan, big	6	Piece
13	Chafing Dish (Food Warmer)	6	Piece
Ξqι	uipment		
1	2-Burner Gas stove with accessories	4	Piece
2	Gas Range/Gas electric range	2	Unit
го	OLS		
1	Electric Mixer/ Beater	3	Piece
2	Rubber Scraper	2	Dozen
3	Measuring Cup (solid)	2	Dozen
4	Measuring Cup (liquid)	2	Dozen
5	Measuring spoon	10	Set
6	Basin Stainless	10	Piece
7	Steamer	4	Piece
8	Tube pan, big	1	Dozen
9	Tray, aluminum	1	Dozen
	Muffin pan	1	Dozen
	Pie plate	1	Dozen
	Blender	1	Piece
13	Coffee grinder	1	Piece

Technical-Vocational Education

LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

COSMETOLOGY

Description/Specification	Quantity	Unit
EQUIPMENT		
1 Hydraulic chair	3	Unit
2 Hair steamer w/ stand	3	Unit
Materials	(*)	
1 Frosting cap	6	Unit
2 Hair dryer	10	Unit
3 Heating cap	4	Unit
4 Curling Iron	6	Unit
5 Foot spa machine	6	Unit
6 Roller brush	5	Unit
7 Drip pan	5	Unit
8 Frosting cap , rubberize	5	Unit
9 Barber's brush	5	Unit
10 Shampoo bowl	6	Unit
11 Shampoo chair	6	Unit
12 Hair cutting scissors	20	Unit
13 Hair iron ceramic	6	Unit
14 Tinting comb with brush	5	Unit
15 Trolley trays, 5 layers	10	Unit
16 Electric hair shaver	5	Unit
1,7 Manicuring table	20	Unit

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

GARMENTS

Description/Specification	Quantity	Unit
Tools		
1 Pinking shears	24	Piece
2 Cutting shears(genuine stainless)	24	Piece
3 Buttonhole scissor	24	Piece
4 Embroidery scissor	24	Piece
5 L-square (Stainless)	24	Piece
6 Hip curve(Stainless)	24	Piece
7 French curve (plastic)	24	Piece
8 Tape measure(plastic)	24	Piece
9 Meter stick (wooden)	24	Piece
10 Machine needle (assorted)	6	Dozens
11 Tracing wheel	24	Piece
12 Tailor's pin	24	Piece
13 Thimble	24	Piece
14 Hem marker	6	Piece
15 White Tetoran	50	yards
Equipment		
1 Sewing machine with motor	7	Set
2 Mannequin (full size, junior size, boys and girls)	5	Piece
3 Sewing Machines:		
- Over edging Machine	1	Unit
- Straight Ordinary sewing Machine	6	Unit
- High speed Machine	2	Unit
4 Cutting tables	6	Unit
5 Lifesize mirror	2	Piece
6 Mannequins' Bust Forms (male/female)	5	Piece

	ANIMAL PRODUCTION			
	EQUIPMENT/TOOLS & MATERIALS	QTY	UNIT	
1	Ear notcher	2		
2	Syringe	1		
3	Drenching gun	1		
4	Dehorner	1		
5	Nozzle	4		
6	Bolo	40		
7	Crowbar	5		
8	Axe	2		
9	Wheel barrow	5		
10	Hand gloves	10		
11	Boots	10		
12	Weighing scale	1		
13	Butcherine knife set	10		
14	Emanculator	1		
15	Whiteboards	5		
16	Heater	1		
18	Incubator w/ 200 pieces capacity	1	O .	
19	Al kit & other paraphernalia	1		
20	Egg grader	2		
21	Egg candler	1		
22	Khapsack sprayer	1		

	CROP PRODUCTION		
	EQUIPMENT/TOOLS & MATERIALS	QTY	UNIT
1	Scythe	30	
2	Grass cutters	2	
3	Hand trowels	30	
4	Hand forks	30	
5	Spade	30	
6	Shovel	30	
7	Crowbar	10	
8	Garden hoe	30	
9	Spading fork	30	
10	Pruning shears	20	
11	Bolo	30	
12	Saw	5	
13	Hammer	5	
14	Axe	5	
15	Hole diggers	5	
16	Pair of scissors	10	
17	Picking or harvesting knives	10	
18	Budding/grafting knives	30	
19	Pick mattock	20	
20	Draft carabao	1	
21	Water pump	1 1	
22	Sprayers	6	
23	Sprinkles	20	
24	Wheel barrow	10	
25	Steel tape	1	
26	Soil testing kit	2	
27	Weighing scale	1	
28	Power sprayer	2	

FOOD PROCESSING			
	EQUIPMENT/TOOLS & MATERIALS	QTY	UNIT
1	Poly sealer	3	
2	Soaking vats	2	
3	Salinometer	6	
4	Knives	25	
5	Slicers (Tocino)	1	
6	Peelers	6	
7	Spatulas & rubber spatulas	12	
8	Colanders	6	
9	Food tongs	6	
10	Strainers	6	
11	Set of measuring spoons	12	
12	Set of measuring cups for liquid	6	
13	Set of measuring cups for drying ingredients	6	
14	Hot lifter	2	
15	Mixing Bowls (plastic)	40	
16	Mixing bowls (stainless)	6	
17	Utility trays (stainless)	6	
18	Casseroles of various sizes (Set)	10	
19	Chopping boards	5	
20	Saucepans (stainless)	4	
21	Refractometer	1 1	
22	Thermometer	1	
23	Jelly thermometer	6	
24	Osterizers	2	
25	Juice extractors	2	
26	Steamers	1	
27	Can sealer	1	
28	Bottle sealer	1	
29	Gas tank (LPG)	3	
30	Fermentation vats	1	
31	Steam jacketed kettle	3	
32	Hydrometer	1	
33	Lifters		
		3	
34	Kettles (varying capacities)	5	
35	Ladles (stainless/wooden)	5	
36	Fish scalers	5	
37	Pulp finishers	3	
38	Plastic protected cap sealer	3	
39	Electric sealer	1	
40	Wire baskets	2	
41	Exhaust boxes	2	
42	Weighing scales (varying capacities and sensitivities)	4	
43	Stoves (double)	1	
44	Smokehouse	1	
45	Refrigerator	1	
46	Freezer	1	
47	Double burner stove w/ accessories	3	

	HORTICULTURE				
	EQUIPMENT/TOOLS & MATERIALS	QTY	UNIT		
1	Scythe	30			
2	Grass cutters	1			
3	Hand trowels	30			
4	Hand forks	30			
5	Spade	30			
6	Shovel	30			
7	Crowbar	10			
8	Garden hoe	30			
9	Spading fork	30			
10	Pruning shears	20			
11	Bolo	30			
12	Saw	5			
13	Hammer	5			
14	Axe	5			
15	Hole diggers	5			
16	Pair of scissors	10			
17	Picking or harvesting knives	10			
18	Budding/grafting knives	30			
19	Pick mattock	20			
20	Draft carabao	1			
23	Water pump	1			
24	Sprayers	3			
25	Sprinkles	15			
26	Wheel barrow	6			
27	Steel tape	5			
28	Soil testing kit	2			
29	Weighing scale	1			
30	Power sprayer	1			

Technical-Vocational Education

LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

FISHERY

FISH CAPTURE			
EQUIPMENT/TOOLS & MATERIALS	QTY	UNIT	
Equipment			
1 Boat and Accessories	1		
2 Motor Engine 16HP	1		
3 Computer Set	1		
4 Two Way Radio	4		
5 Fish Finder	1		
6 Binocular	2		
7 Magnetic Compass	1		
8 Fishing Gear Outpits	15		
9 Fish Tubs	5		
Tools			
1 Ball pein Hammer	4		
2 Screw Drivers	2		
3 Mechanical Tools (wrenches)	2		
4 Weighing scales	1		
5 Coleman (Light)	2		
6 Spotlight	2		
7 Ice Box	6		
8 Battery (12 volts)	2		
9 Navigational Chart	10		
10 Set of Navigational Tools	40		
(divider, parallel, ruler, pencil)			
11 Diving Suit	5		
12 Flippers	5		
13 Snorkel	5		
14 goggles	5		
15 Fishing Gear outpits	15		
16 Fish Tubs	5		
Materials			
1 Netting (with accessories)	4		
2 Fishing ropes	10		
3 Cutters/scissors/knives	40		
4 Assorted Knitting Needle	200		
5 Twine (monofilament)	10		
Safety Devices	1 12 1		
1 Mouth Mask	40		
2 Hand Gloves (Cotton)	40		
3 Head Gear	20		
4 First Aid Kit	4		
5 Life Jacket	6		
6 Fire Extinguisher	2		
7 Boots	40		
8 Safety Eye wear (Plastic)	40		

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LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

FISHERY

FISH CULTURE				
EQUIPMENT/TOOLS & MATERIALS	QTY	UNIT		
Equipment				
1 Surveying Equipment	1			
2 Paddle wheel	2			
3 Water pump	1			
4 Filled oxygen tank	1			
5 Feed storage	1			
6 Freezer	1			
Tools				
1 D.O. Meters	2			
2 Flow rate meter	3			
3 Lab. Thermometer	40			
4 Shovel	20			
5 Water depth gauge	40			
6 Digging blades	20			
7 Masonry tools	2			
8 Cultivator/rake	20			
9 Net	2			
10 P.E. Rope	2			
11 Pail (plastic)	100			
12 Weighing scale	2			
13 Safety shoes	40			
14 Sinker	15			
15 Eckman dredge	2			
16 Secchi disc	5			
17 Water qty. test kit	2			
18 pH meter	1			
19 Fish cages accessories	5			
20 Soil tester	2			
21 Fishcage & Accessories	5			
22 Beaker	10			
23 Netting needle	40			
24 Water current meter	1			
25 Plastic basin	40			
26 Hand gloves	40			
27 Face mask	40			
28 Plastic bags	2			
29 Bolo	20			
30 Cast net				
31 Current meter	2			
32 Dissecting board	5			
33 Dissecting tools 34 Fish grader	5 5			
35 Forceps	40			
36 Refractometer	2			
37 Blower	1			
38 Salinometer	1			
39 Scoop net	5			
40 Suspension net	1			

Technical-Vocational Education

LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

FISHERY

FISH PROCESSING			
EQUIPMENT/TOOLS & MATERIALS	QTY	UNIT	
Equipment			
1 Pressure Cooker	1		
2 Can Sealer	1		
3 Plastic Sealer	3		
4 Refrigerator	1		
5 Horizontal Freezer	1		
6 Gas Range	1		
7 Smoke House	1		
8 Vacuum Pack Machine	1		
9 Electric Mixers (Heavy Duty)	2		
10 Hot Air Blower	5		
11 Stuffer/Linker	1		
Tools and Supplies	·		
1 Kettle	40		
2 Frying pan	10		
3 Measuring spoon	40		
4 Mixing bowl-stainless	40		
5 Mixing bowl-glass (by set)	10		
6 Apron	40		
7 Basin-stainless	40		
8 Knives	40		
9 Steamer	10	"	
10 Cap seal of diff sizes	5,000		
11 Gloves	40		
12 Laboratory gown	40		
13 Weighing scale-1000g	20		
14 Weighing scale-10kg	20		
15 Paring knives	40		
16 Peelers	40		
17 Glass measuring cup	40		
18 B - tin cans	40		
19 Measuring cup for solid (by set)	40		
Safety Equipment			
1 Fire Extinguisher	1		

Technical-Vocational Education LIST OF BASIC EQUIPMENT, TOOLS, AND SAFETY APPARELS/EQUIPMENT

ARTS AND TRADES

TECHNICAL DRAWING

Description/Specification	Quantity	Unit
Tools and Equipment		
1 T square, 36" wooden body w/ graduated plastic	50	
edge-adjustable		
2 Drawing table & stool 36"x24	50	Set
Safety Equipment		
1 Fire extinguisher ABC type, Dry chem 5kg	2	