





Annex "F" - Technical Specifications of Technical-Vocational-Livelihood Learning Tools and Equipment (TVL LTE)

FY 2022

Item Name	TVL Specialization	Functional Specification	Performance Specification	Design Specification:
Bolo	Agricultural Crops Production (NC I)	Used for cutting tall grasses and weeds and chopping branches of trees.	The clearing of vegetation, whether for agricultural or during trailblazing is much easier.	Type: Garden Bolo Material: Forged Steel, Carbon steel Overall length: 17 inches (minimum) Blade length: 12 inches (minimum) Thickness: 1/8inch. (minimum) Width: 2 1/4inches widest (minimum) 1 3/4inches narrowest (minimum) Handle: hardwood with metal bolster Head weight: 1 kg. (minimum) Length handle : 24 inches (minimum) Comes with hardwood handle Comes with carton box Rust free
Container, 15 liters cap.	Agricultural Crops Production (NC I)	Used for storing, sorting and transporting items.	Things kept inside of a container are protected by being inside of its enclosure.	Type: Container Body shape: Material: Polypropylene Dimensions: Length: 40 cm (minimum) Width: 28 cm (minimum) Height: 19 cm (minimum) Capacity: 15 liters (minimum) Non toxic

Item Name	TVL Specialization	Functional Specification	Performance Specification	Design Specification:
Hoe, Light (Digging tool)	Agricultural Crops Production (NC I)	Must be able to remove weeds and loosen soil	Cultivates soil or vegetable beds	Hoe Material: Carbon Steel, 1/16 inch thick (minimum) Draw hoe type Hoe Length: 6 1/2 inch (minimum) Hoe Width: 4 1/2 inch (minimum) Length: at least 48 inches Handle: Hard Wood Branded"
Knife, Budding (Cutting tools)	Agricultural Crops Production (NC I)	Used by horticulturist to create a budding or graft union in plants.	The budding knife has a curved edge and a blunt end for opening the bark and inserting the bud easily.	Type: Budding Body shape: Material Blade: Stainless steel Thickness: 1 mm (minimum) Blade Length: 6 cm (minimum) Overall length: 17 cm (minimum) With a folding brass lifter and plastic handle No sharp edges except the blade Packaging optional
Knife, Picking (Cutting tools)	Agricultural Crops Production (NC I)	Used for cutting plants and vegetables	Must be able to cut plants and vegetables	Type: Vegetable Body shape: Material: High Carbon steel Overall length: 8.5 inches (minimum) Handle material: with soft grip handle cover Handle comes with open/close clip for easy and safe storage Comes with carton box No sharp edges except the blade Packaging optional Must be Branded
Mask, Dust	Agricultural Crops Production (NC I)	Use to protect respiratory against non toxic dust	Must be able to protect respiratory against non toxic dust	Type: Mask for non - toxic dusts Material: Surgical dust/face mask, non woven fabric, with elastic straps Dimension: (approximate): L 6.7 inches x W 3.7 inches No loose fibers and sharp edges Comes with plastic pouch

Item Name	TVL Specialization	Functional Specification	Performance Specification	Design Specification:
Petri dish	Agricultural Crops Production (NC I)	Ideal for culture micro organism on media	The culturing of cells is easily and properly executed	Type: Plastic Body shape: Circular Material: Polypropylene plastic Inside Diameter: 150 mm (minimum) Depth: 17 mm (minimum) Thickness: 1.5 mm (minimum) Comes with optically clear and flat bottom Comes with carton box Must be Branded
Pick Mattock (Digging tool)	Agricultural Crops Production (NC I)	Must be able to break up hard earth as well as stones and rocks in the ground,	Cultivates or digs the hard ground with two pounds head capacity	Material: Forged Carbon steel Blade=2 inches(minimum) Pick axe length=6 inches(minimum) Head capacity/Permanently etch on the head: 2.0 pounds With wooden handle Handle length: 20 inches(minimum) The head must be press fitted for maximum safety Branded.
Rake	Agricultural Crops Production (NC I)	Must be able to clear fields, stirring, spreading lawns, and yards.	Cleared the agricultural area before planting activity	Type material: Forged Carbon steel Time number: 10 to 12 times Handle length: 4 ft (minimum) Time height: 2 3/4 inches (minimum) Comes with hard wood handle Design with welded blade socket Garden rake type
SCISSORS	Agricultural Crops Production (NC I)			Type : Scissors Body Shape : Standard Shape Material : Stainless stell with soft grip handle Length : 8 inches (minimum) Well-Polished and sharp for cutting paper and fabric Comes with carton box No sharp edges except on the blade The item must be branded and have good quality
Shears, Pruning	Agricultural Crops Production (NC I)	Must be able to cut plant stems and hard shrub branches.	Cuts the abovementioned up to 1 inch	Blade material: Forged steel Cutting Capacity: 1 inch(minimum) Total length 7 inches minimum With non slip grip handle Multifunctional labor type Packed with shipping carton box

Item Name	TVL Specialization	Functional Specification	Performance Specification	Design Specification:
Shovel	Agricultural Crops Production (NC I)	Used for digging, lifting, and moving bulk materials, such as soil, coal, gravel, sand and etc.	Must be able to dig, lift, and move such as soil, coal, gravel and sand and etc.	Type: Round nose Body shape: Material: High carbon steel plate Blade thickness: 1.9 mm (minimum) Handle type and material: D- type, Hardwood Width blade: 8.5 inches (minimum) Handle length : 29 inches (minimum) Overall length : 40 inches (minimum) No sharp edges Must be branded
Sprayer, Knapsack	Agricultural Crops Production (NC I)	Must be able to spray fungicides or insecticides with a sprayer being carried on his back and equipped with pressured nozzle.	Spray and use large area or taller trees	Material: Stainless Steel Capacity: 4 gallons to 5 gallons Back pack type Operating /working pressure range : 2 - 4 bars(15 - 60 psi) Comes with complete accessories including the nozzle, rubber hose, connectors pumping lever and shoulder straps. With User's Manual in English which includes: a. parts manual with labels, b. assembly instructions, c. operating procedures, d. safety precautions when using the equipment, Warranty period of parts and service: 1 year Packed with shipping carton box Branded
Sprinkler	Agricultural Crops Production (NC I)	Used for watering plants.	Watering plants with at least 12 liters capacity	Material: Hard plastic, 1.5 mm thick (minimum) Capacity: 12 liters(minimum) Comes with handle and spout Non toxic Branded"

Item Name	TVL Specialization	Functional Specification	Performance Specification	Design Specification:
Stop Ladder	Agricultural Crops Production (NC I)	Must be able to use on climbing up or down during trimming or cutting trees	Holds weight up to 250 pounds	Material: aluminum U channel Capacity: 250 lbs (minimum) Type: Platform type Number of step: 6 (including top step) Reach height: 6 to 8 Feet(minimum) Width: 15 inches minimum Spread: 4 feet (minimum) Twin steps with gripped treads to prevent slipping Step braces on top and bottom step Heavy duty aluminum foot bracket with slip-resistant foot pad With User's Manual in English which includes: a. parts manual with labels, b. assembly instructions, Branded
Transplanting tools	Agricultural Crops Production (NC I)			Type: Transplanting Body shape: Material: Carbon steel Size: 5.5 cm bottom diameter x 23 cm Height (minimum) Thickness: 3 mm (minimum) Total length: 23 cm With serrated end Comes with plastic handle No sharp edges Comes with carton box
Tray, Seedling	Agricultural Crops Production (NC I)	Use to hold multiple seeds starting from the germination stage, until the seedling are ready for transplantation	These trays are specially designed to improve water drainage, ensuring healthier plants	Type: Plastic Body shape: Rectangular Material: Hard plastic Length: 24 inches (minimum) Width: 1.2 inches (minimum) Depth: 1.5 inches (minimum) Capacity: 100 seedlings (minimum) Hole diameter: 1.5 inches (minimum) No damage Packing optional Must be painted
Trowel, Hand	Agricultural Crops Production (NC I)	Must be able to dig up or dig out weeds or install small plants or bulbs.	Performed the digging small holes and transplanting plants.	Type: Garden trowel Material: Carbon Steel Thickness: 0.80 mm (minimum) Blade width: 8 cm(minimum) Blade length: 13 cm(minimum) Length including the handle: 30 cm (minimum) Branded

Item Name	TVL Specialization	Functional Specification	Performance Specification	Design Specification:
Garden Hoe	Agricultural Crops Production (NC II)	Must be able to remove weeds and loosen soil	Cultivates soil or vegetable beds	Hoe Material: Carbon Steel, 1/16 inch thick (minimum) Draw hoe type Hoe Length: 6 1/2 inch (minimum) Hoe Width: 4 1/2 inch (minimum) Length: at least 48 inches Handle: Hard Wood Branded"
Hand sprayer	Agricultural Crops Production (NC II)	Must be able to spray manually and filled with agricultural chemicals to spray the plants.	Spraying agricultural field or garden	Material: Plastic Capacity: 1 liter (minimum) Thickness: 1mm (minimum) With hand pump handle Trigger type Packed with shipping carton box
Harvesting pole	Agricultural Crops Production (NC II)	Must be able to harvest or collect ripe or green fruits or crops from the taller trees	Collect or harvest the fruits	Pole material: Fiber glass Pole diameter: 1 inch (minimum) Length of the extendable pole: 12 feet (minimum) Fruit basket dimension Diameter- 5 inch (minimum) Height - 10 inches (minimum) Fruit basket material: Heavy gauge vinyl coated wire basket Can pick fruit by grab and pull action Manual type
Hedge shear	Agricultural Crops Production (NC II)	Must be able to cut, trim small branches and grass	Cut woody material or branches up to 3/4 inch thick.	Blade material: Carbon steel Blade size : Length- 225 mm (minimum) Width- 45 mm (minimum) Thick- 4mm (minimum) Overall length: 700mm Wooden handle with ferrule Non corrosive Packed with protective carton box Must be branded"
Hole Digger	Agricultural Crops Production (NC II)	Must be able to dig narrow holes	Digging narrow holes to plant trees or for fences to protect the agricultural land	Blade Material: Carbon steel , 1/16 inch thick (minimum) Handle Material: Hardwood Handle length: 4 feet (minimum) Jaw digger/ Blade width dimension: 4 inches (minimum) Blade length: 8 inches (minimum) Blade spread: 5 inches (minimum) Manual post hole digger type

Item Name	TVL Specialization	Functional Specification	Performance Specification	Design Specification
Rake	Agricultural Crops Production (NC II)	Must be able to clear fields, stirring, spreading lawns, and yards.	Cleared the agricultural area before planting activity	Time material: 1 or 2 (minimum) Time number: 10 to 12 (minutes) Handle length: 4 ft (minimum) Time height: 2 1/4 in (minimum) Comes with hard wood handle Design with welded blade and belt Garden rake type
SCISSORS	Agricultural Crops Production (NC II)			Type: Scissors Body Shape: Standard shape Material: Stainless steel with soft grip handle Length: 8 inches (minimum) Well-polished and sharp for cutting paper and fabric Comes with carton box No sharp edges except on the blade The item must be branded and have good quality Type: Round nose Body shape: Material: High carbon steel plate Blade thickness: 1.9 mm (minimum) Handle type and material: 1 type, Hardwood Width blade: 8.5 inches (minimum) Handle length: 29 inches (minimum) Overall length: 40 inches (minimum) No sharp edges Must be branded
Shovel	Agricultural Crops Production (NC II)	Used for digging, lifting, and moving bulk materials, such as soil, coal, gravel, sand and etc.	Must be able to dig, lift, and move such as soil, coal, gravel and sand and etc.	
Soil Auger	Agricultural Crops Production (NC II)	Must be able to bored in depths for soil sampling may be obtained	Bore up to 10 inches depth	Auger blade material: Carbon steel Auger Blade diameter: 2 1/4 inch (minimum) Length of the blade: 10 inches (minimum) Overall length including the handle: 4 feet (minimum) Hand auger type Packed with protective carton box
Soil Moisture meter	Agricultural Crops Production (NC II)	Must be able to measure moisture content of the soil.	Measured soil moisture from 7% up to 35%	Body material: Hard plastic Probe length: 9 cm (minimum) With pH, Light and Moisture readout scale pH meter value ranges from 3.5 to 8 Moisture humidity value ranges from 1 to 10 Comes with storage box With User's Manual in English which includes: a. parts manual with labels, b. Operating procedure on how to use the equipment c. Safety precaution when using the equipment d. Basic troubleshooting and maintenance procedure.

Item Name	TVL Specialization	Functional Specification	Performance Specification	Design Specification:
Steel tape	Agricultural Crops Production (NC II)	Functional: Use for framing and laying rafters and stairs. It can also be used as a straight-edge, finding and establishing right angles and marking cut-off work on widestock.	Performance: Must extend framing and laying rafters and stairs and must find straight-edge, and must established right angles and marking cut-off work on widestock.	Type: Metric Body Shape: L-shape Blade Material: Stainless steel Blade Length: 300 mm Graduation: 1mm Blade Width: 30 mm(minimum) Blade Thickness: 1 mm(minimum) Handle Length: 150 mm(minimum) Graduation are marked permanently Numbers and graduations are endgraved and filled with black or red color Packed in a plastic pouch Warranty period of 1 year.
1 TB External hard drive	Animation NC II	Used to store media located outside of a computer that is connected through a USB cable or wireless connection that a user needs to be portable, for backups, and when the internal drive of the computer is already at its full memory capacity	Must be able to store media connected through a USB cable that needs to be portable, for backups, and additional memory capacity	1TB Portable/External Hard Drive Application: Laptop / Desktop PC Interface Type: SATA II Installation: Mobile Formatted Capacity: 1000GB(Windows Display about 298GB) Size(mm): 14.29 x 80.01 x 17.60 (Approx.) Metal/Plastic Casing Comes with USB 3.0 cable (18 inches minimum) User's manual (English) on name of parts, user's guide, wiring connection, safety precautions and maintenance
Eraser	Animation NC II	Erase pencil and pen marks from the drawing paper.	Erase pencil and pen marks without creasing or leaving discoloration on paper.	Material: Rubber; Length: 49 mm (minimum); Width: 18 mm (minimum); Thickness: 7 mm (minimum); No discoloration of the eraser on paper; The material used must be non-toxic; Carton box or plastic pouch packaging with 21 pieces of rubber eraser