CTE Frameworks - Agricultural Mechanics Equipment List

## Suggested Equipment List

### Safety Equipment

* Safety glasses and face shields
* Ear protection (earplugs or earmuffs)
* Knee pads
* First aid kits
* Respirators and dust masks
* Steel-toe boots and gloves
* Fall protection gear
* Fire extinguishers

### Classroom Technology and Instructional Tools

* Projector or Interactive Whiteboard
* Computers or Tablets
* Document Camera
* Large and Small Engine Models
* Diagrams and Posters
* Sample Engine Parts

### Basic Hand Tools for Mechanics

* Wrenches (ratchet, box-end, open-end, adjustable, torque)
* Socket sets (standard and metric, deep and shallow)
* Screwdrivers (flathead, Phillips)
* Pliers (needle-nose, slip-joint, channel lock)
* Hammers (ball-peen, dead blow, rubber mallet)
* Allen/hex keys (standard and metric)
* Pry bars
* Files and chisels
* Tape measures and rulers
* Utility knives
* Wire strippers and crimpers

### Specialty Tools for Mechanics

* Engine compression testers
* Fuel injection pressure testers
* Cylinder bore gauges
* Valve spring compressors
* Piston ring compressors and expanders
* Flywheel holding tools
* Diesel injector pullers
* Cooling system pressure testers
* Timing lights and timing tools
* Oil filter wrench

### Diagnostic and Testing Equipment

* Digital calipers and micrometers
* Multimeters for electrical testing
* Battery testers and chargers
* Engine oil pressure gauges
* Torque angle gauge
* Feeler gauge
* Tool Calibration Equipment

### Tools for Construction

* Power Tools: Drills, circular saws, reciprocating saws, band saw, table saw, and jigsaws.
* Hand Tools: Saws (hand saws, miter saws), levels, squares (framing and speed squares), shovels, hammers, and trowels.
* Measurement Tools: Laser levels, stud finders, and chalk lines.
* Scrapers for removing paint or adhesive
* Ladders: Extension and step ladders
* Concrete Tools: Concrete mixers, floats, and trowels.
* Plumbing Tools: pipe wrenches, adjustable wrenches, pipe cutters, hacksaws, soldering equipment (torches, solder, flux), pipe benders, teflon tape, plumber’s tape

### Irrigation Tools and Equipment

* Drip irrigation supplies, drip emitters, drip tubing
* Filtration systems
* Sprinkler systems, sprinkler heads
* Pipe and fittings, PVC or poly pipe
* Pressure regulators
* Valves. gate valves, check valves
* Timers and controllers
* Soil moisture sensors
* Water pumps
* Backflow preventers
* Hydraulic tools
* Plunger and drain snake

### General Equipment:

* Portable generator
* Material handling equipment: dollies or carts
* Field testing equipment: soil test kits, moisture meters, and ph meters.

### Lifting and Hoisting Equipment

* Hydraulic floor jacks
* Engine hoists and stands
* Jack stands

### Air Tools and Pneumatic Equipment

* Impact wrenches and ratchets
* Air hammers and chisels
* Air compressors
* Air-powered sanders and grinders
* Tire inflators
* Blow guns

### Welding, Cutting and Metalworking Tools

* Welding machines: MIG and TIG welders
* Spot welders
* Oxy-acetylene cutting torches
* Plasma cutters
* Cutting tips, nozzles and contact tips
* Welding helmets, gloves, and protective clothing, respirators
* Ground clamps
* Welding gauges
* Angle grinders
* Wire brushes
* Bead rollers
* Metal Benders

### Shop Equipment

* Workbenches with vises
* Parts washers and solvents
* Shop vacuums and air filtration systems
* Oil and fluid disposal containers
* Toolboxes and storage cabinets