

Alabama CTE Equipment List

This list is based on a classroom size of 25 students and meets minimum standards. All costs are estimated. No specific equipment vendor or brand names are endorsed, but school districts should consult with stakeholders to ensure industry-recognized equipment and software are purchased. The intent of this list is to provide school districts with guidance on the equipment needed to cover the state standards for a Heating, Ventilation, and Air Conditioning program and are not meant to dictate the number of students that can safely fit in a classroom and/or laboratory.

Cluster: Architecture and Construction
Program: Heating, Ventilation, and Air Conditioning

CLASSROOM EQUIPMENT

TOTAL: \$8,300

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
5	Computer/device with Current Operating System	\$1,000	\$5,000
3	File Cabinets	\$100	\$300
1	Laser Printer	\$500	\$500
1	Technology- LCD projector	\$2,500	\$2,500

PROGRAM EQUIPMENT (Items over \$250)

TOTAL: \$25,225

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
1	Air Conditioning Service Trainer (with Switchable Faults)	\$2,500	\$2,500
6	Basic Electricity Trainers (with Switchable Faults)	\$1,200	\$7,200
1	Cleaning/Chemical Cabinet, locked	\$250	\$250
4	Digital Electrical Thermometer (with Remote Bulb)	\$250	\$1,000
1	Digital Refrigerant Scale	\$350	\$350
1	Dual Voltage Air Compressor with Hose (3.5 Horsepower per/minute)	\$400	\$400
1	Free Standing Variable Speed Drill Press (with Chuck)	\$400	\$400
1	Gas Heating/Cooling Schematic Trainer (with Switchable Faults)	\$2,500	\$2,500
1	Halide Lead Detector	\$300	\$300
1	Heat Pump Schematic Trainer (with Switchable Faults)	\$2,500	\$2,500
1	Heat Pump System Analysis and Trouble Shooting Trainer (with Switchable Faults)	\$2,500	\$2,500
1	Infrared Temperature Sensor	\$250	\$250
4	Oxyacetylene Welding Set	\$300	\$1,200
2	Recovery Unit with Tank (R-22)	\$800	\$1,600
2	Refrigerant Reclaiming and Recycling Unit	\$1,000	\$2,000
1	Refrigerant Tank (Each 22, 134-A, etc.)	\$500	\$500

INSTRUCTIONAL SUPPLIES (Items under \$250)

TOTAL: \$18,210

QUANTITY	ITEM DESCRIPTION	UNIT	TOTAL
3	¼" Socket Set (Standard or Metric)	\$75	\$225
3	½" Socket Set (Standard or Metric)	\$75	\$225
2	10" Pipe Wrench	\$50	\$100
2	10" Slip Grove Pliers	\$25	\$50
2	12 oz. Ball Peen Hammer	\$20	\$40
3	12" Adjustable Wrench	\$20	\$60
2	14" Slip Grove Pliers	\$25	\$50
3	16" Adjustable Wrench	\$20	\$60
3	3/8" Socket Set (Standard or Metric)	\$75	\$225
1	4" Table Vise	\$50	\$50
3	5 CFM Vacuum Pump	\$200	\$600
2	6' Fiberglass Step Ladder	\$100	\$200
3	6" Adjustable Wrench	\$20	\$60
2	6" Diagonal Pliers	\$25	\$50
4	6" Long-nose Pliers	\$25	\$100
3	8" Adjustable Wrench	\$20	\$60
2	8" Slip Grove Pliers	\$25	\$50
1	8" Table Vise	\$100	\$100
2	Acetylene (B) Cylinder	\$100	\$200
2	Acetylene Cylinder	\$25	\$50
2	Air-Acetylene (B) Brazing Kit	\$150	\$300
3	Allen Wrench Set (Long)	\$40	\$120
1	Allen Wrench Set (Short)	\$30	\$30
2	Allen Wrench Set (T-Handle)	\$50	\$100
2	Analog Meter (Volt, Ohm, and Milliamp)	\$100	\$200
1	Anemometer	\$40	\$40
2	Appliance Truck	\$125	\$250
12	Assortment of Terminal Ends, Disconnects, and Locks	\$25	\$300
1	Bending Spring Set	\$30	\$30
1	Bloodborne Pathogen Kit	\$50	\$50
2	Blower Wheel Puller	\$75	\$150
5	Boxes of 8.5" x 11" Paper	\$40	\$200
2	Capacitor Analyzer	\$50	\$100
2	Clamp-on Type Meter (300 Amp)	\$100	\$200
2	Compressor Analyzer	\$100	\$200
2	Compressor Test Cord (120 volt)	\$75	\$150
2	Compressor Test Cord (240 volt)	\$75	\$150
4	Digital Dial Stem Thermometer	\$50	\$200
4	Digital Meter (Volt, Ohm, and Milliamp)	\$125	\$500

1	Double Stage Nitrogen Regulator	\$100	\$100
1	Drill Index (1/32" to 1/2")	\$75	\$75
2	Dust Pans	\$5-10	\$10
2	Electronic Leak Detector	\$200	\$400
2	Electronic Vacuum Gauge	\$200	\$400
30	Eye Protection (Pack of 15-OSHA Standard)	\$30	\$60
4	Fin Combs	\$25	\$100
3	Fire Blankets (with Case)	\$100	\$100
1	Fire Extinguisher (ABCK)	\$200	\$200
3	Flammable Material Storage Locker	\$200	\$600
6	Flare and Swage Set	\$125	\$650
2	Floor Squeegee	\$20	\$40
6	Friction Lighter	\$20	\$120
2	Garbage Can (with Casters)	\$75	\$75
8	Gauge Manifold Set (wit Hose and Disconnect Fitting)	\$100	\$800
2	Hack Saw with Blades	\$30	\$60
2	Hand Sprayer	\$25	\$50
1	Hazardous Skill Response Kit	\$50	\$50
2	Heavy Duty Bench Grinder (with Guard)	\$100	\$200
2	Heavy Duty Copper Tubing Cutter (Up to 1 1/8")	\$100	\$200
30	Heavy Duty Work Gloves (S-M-L)	\$20	\$600
1	Left Hand Tin Snips	\$30	\$30
2	Manometer	\$75	\$150
2	Mechanical Tube Bender (1/2")	\$100	\$100
2	Mechanical Tube Bender (1/4")	\$100	\$200
2	Mechanical Tube Bender (3/4")	\$100	\$100
2	Mechanical Tube Bender (3/8")	\$100	\$200
2	Mechanical Tube Bender (5/1	\$100	\$200
2	Mechanical Tube Bender (5/8")	\$100	\$100
2	Mop	\$20	\$40
1	Mop Bucket	\$50	\$50
2	Nitrogen Cylinder	\$120	\$240
2	Nut Driver Set (Standard or Metric)	\$50	\$100
2	Oil Can	\$25	\$50
2	Open Box Combination Wrench Set (Standard or Metric)	\$50	\$100
1	OSHA "Right to Know" Compliance Kit	\$100	\$100
2	Oxygen Cylinder	\$25	\$50
6	Pocket Screwdriver (1/8" x 3")	\$30	\$180
2	Punch Set	\$25	\$50
2	Reversible Hand Drill (3/8" or 1/2")	\$100	\$200

1	Right Hand Tin Snips	\$30	\$30
4	Safety Can (Solvents, Rags, etc.)	\$100	\$400
12	Screwdriver (#1 Phillips)	\$30	\$360
12	Screwdriver (#2 Phillips)	\$30	\$360
12	Screwdriver (1/4" x 10")	\$30	\$360
12	Screwdriver (1/4" x 6")	\$30	\$360
12	Screwdriver (1/4" x 8")	\$30	\$360
8	Service Valve Wrench (Combination including 3/16", 1/4", 5/16", and 3/8")	\$25	\$200
1	Shop Vacuum	\$200	\$200
4	Sling Psychrometer	\$100	\$400
2	Soldering Gun (250 watt)	\$75	\$150
2	Steel Tape (10')	\$20	\$40
1	Straight Cut Tin Snips	\$30	\$30
1	Superheat Gauge Set	\$50	\$50
6	Swage Set (Punch-type)	\$25	\$150
2	Tap and Dye Set (Standard or Metric)	\$75	\$150
1	Terminal Pliers	\$25	\$25
4	Thermostat (1 Stage Heat/1 Stage Cool)	\$50	\$200
2	Torque Bits	\$10	\$20
1	Torque Wrench	\$100	\$100
4	Wire Strippers/Terminal Pliers	\$25	\$100

OPTIONAL EQUIPMENT/SUPPLIES

ITEM DESCRIPTION
CNC System
Simulator
Trainer

Category Totals:

Classroom Equipment	\$8,300
Program Equipment	\$25,225
Instructional Supplies	\$18,210
Estimated Program Total	\$51,735