The Mountain-Plains Course Resource List is presented by job title for 26 curriculum areas. For each area the printed materials, audiovisual aids, and equipment needed for the course are listed. The 26 curriculum areas are: mathematics skills, communication skills, office education, lodging services, food services, marketing and distribution, welding support, automotive, small engines, career guidance, World of Work, health education, consumer education, home management, parent involvement, carpenters, electronics assembler, electrical wireman, plumber, heating systems serviceman, refrigeration/cooling systems serviceman, appliance serviceman, radio and television serviceman, draftsmen, electric motor repairman, and leadership training. (Author)
COURSE RESOURCE LISTS

By

Robert England
Mathematics Skills 11.01

Mathematics Skills as used at Mountain-Plains is all commercial material.

RESOURCE LIST BY JOB TITLES FOR
CURRICULUM AREA 15 COMMUNICATION SKILLS
(Basic & Advanced)

Printed Materials

No specific outside source is recommended. If the student fails to understand the material from the LAPs, or with help from the instructor, any English language text book of the instructor's choice may be used as a back-up resource.

Audio/Visual

1. GED Video Tape Review. Video tape review of GED preparation produced by Mountain-Plains. (Optional.)

Equipment

1. Video tape equipment, (optional).
Resource List by Course for
Curriculum Area 24 Office Education

Accounting 24.01

Printed Materials


Audio/Visual

35 mm Filmstrips


Equipment

2. Filmstrip Projector.

Business Writing 24.02

Printed Materials


Audio/Visual

none
Equipment

none

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Ten Key Adding Machine 24.03

Printed Material


Audio/Visual


Equipment

1. Monroe Ten Key Adding Machine.
2. Media Systems individual study carrel including slide projector, screen and cassette tape player with headphones - or comparable equipment.

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Printing Calculator 24.04

Printed Materials


Audio/Visual

Equipment

1. Study carrel described above.

Electronic Calculator 24.05

Printed Materials


Audio/Visual


Equipment

2. Study carrel described above.

Data Processing 24.06

Printed Materials


Audio/Visual

none
Equipment

1. IBM 59 Card Verifier.
2. IBM 29 Card Punch.
3. IBM 82 Card Sorting Machine.
4. Materials, paper, pencils and 3 x 5 note cards.

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Filing for Accounting and Clerical Cluster 24.08

Printed Materials


Audio/Visual

none

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Keypunch 24.10

Printed Materials


Audio/Visual

1. Videotape produced by Mountain-Plains.
Equipment

1. IBM 59 Card Verifier.
2. IBM 29 Card Punch.
3. Video Tape Deck.
4. Video Play Back Unit.

Full Keyboard Adding Machine 24.13

Printing Materials


Audio/Visual

none

Equipment

1. Full Keyboard Adding Machine.

Beginning Shorthand 24.15

Printed Materials


Audio/Visual

none
Equipment

1. Audio-Visual Tape Player and Viewer.
2. Cassette Tape Player.

Shorthand Transcription 24.16

Printed Materials


Audio/Visual


Keyboard Typing 24.17

Printed Materials

Audio/Visual


Equipment

1. Media Systems learning carrel as listed above.
2. A Typewriter.

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Production Typing 24.18

Printed Materials


Audio/Visual

2. AVT Curriculum Package, Typing II (BTL-100), Intermediate Typing. Media Systems Curriculum. The above include slide/tape lessons, skill building tape cassettes and tests.

Equipment

1. Learning carrel as listed above.
2. A Typewriter.

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Machine Transcription 24.19

Printed Materials

1. New York State Secretarial Practice Transcription Course: Part I

Audio/Visual

none

Equipment

1. Cassette Tape Player with earphones and foot pedal.
2. A Typewriter.

Secretary On The Job 24.20

Printed Materials


Audio/Visual

1. The Secretary on the Job Dictation Tape.

Equipment

1. Cassette Tape Player with earphones and foot pedal.
2. Duplicating Machine (ditto).
3. A Typewriter.
Modern Office Procedure 24.21

Printed Materials

1. The Replacement. Weed and McKenna, Gregg Division, McGraw-Hill.
8. The Receptionist. Wood and McKenna, Gregg Division, McGraw-Hill Book Company.

Audio/Visual

1. Video Tapes demonstrating duplicating methods.

Equipment

1. Video Tape Player and Viewer.
2. Postal Scale.
   (Duplicating Machine Processes)
3. Fluid Duplicator.
4. Photocopier.
5. Thermafax Machine.
6. A Typewriter.
7. Stylus (tracing, ball point, burnisher, lettering).
8. Shading Plate.
10. Ditto Masters.
11. Stencils.
12. Stencil Correction Fluid.
14. Ruler.
15. Spirit Masters.
20. Telephone Tapes.
22. Cassette Recorder.
23. Blank Tapes.
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 25 LODGING

Housekeeping Operations 25.01

Printed Materials


Audio/Visual

Super 8 Filmstrips:


Equipment

1. Seventy-07 Fairchild film system projector, National Education Media.
2. Simulated guest bedroom (bed, dressers, night stands, lamps).
3. Simulated guest bathroom.
4. Furniture polish.
5. Toilet brush.
6. Liquid cleaner ("409", etc.)
7. Cleaning rags.
8. Maid supply basket.
10. Sheets (2 double flat).
11. Pillow cases.
Printed Materials

5. **NCR Class 5 Manual.** National Cash Register Company.
12. **Legal Aspects of Hotel, Motel and Restaurant Operations.** ITT Educational Services.

Audio/Visual

Film Cassette

1. **The Front Desk.** National Education Media Film System.

Equipment

1. Calculator.
2. Cash drawer.
3. Cashier deposit envelope.
4. Credit card.
5. Credit card imprinter.
6. Credit card sales draft.
7. Credit card credit draft.
9. Correction and transfer debit-credit vouchers.
10. “D” report or blank folio.
11. Guest account cards.
13. Hotel/Motel transcript and recapitulation form.
15. Assignment packages.
16. NCR guest folios.
17. NCR 42, Posting Machine.
19. Ruler.
20. Simulated front office with: Registration desk.
    Room rack.
    Bulletin Board.
    As much other miscellaneous equipment as possible to make a good simulation.
21. Paper clips and/or stapler.
22. Simulated guest bedroom (bed, dresser, night stand, lamps).
23. Sweda 76 Cash Register
24. Work schedules.

Night Auditing Procedures 25.03

Printed Materials
2. Hotel Front Office Management and Operation. Dukas, the Educational Institute.

Audio/Visual

none

Equipment
1. Calculator.
2. Guest folio pack.
3. NCR guest folios.
4. Miscellaneous front office equipment (the more equipment, the better the simulation).
5. NCR 42, Account Posting Machine.
7. Sweda 76 Cash Register.
8. City ledger accounts file.
9. Correction and transfer debit-credit vouchers.
10. "D" report or blank folio.
11. Hotel/Motel transcript and recapitulation form.
12. Simulated guest bedroom (bed, dresser, night stand, lamps).
13. Vouchers.
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 26 FOOD SERVICES

Kitchen Helper 26.01

Printed Material

1. Custodial Training. Ohio Trade and Industrial Education Service, Division of Vocational Education, State Department of Education, Columbus, Ohio. Edited and distributed by Trade and Industrial Education Instructional Materials Laboratory, the Ohio State University, College of Education, Columbus, Ohio.

2. Elements of Food Production and Baking. Aaron Kaplan, ITT Educational Services, Inc., 55 West 42nd Street, New York, New York.

3. Food Training Routines I and II. Kent State University, Food Service Department, Kent, Ohio, published by INSTITUTIONS Magazine, 1801 Prairie Avenue, Chicago, Illinois.


Audio/Visual

35 mm Filmstrip and 33 1/3 rpm record


35 mm Filmstrip and Audio Cassette

Super 8 Sound Film


Video Tape


Equipment

1. Cleaning equipment for: Floor mopping, floor sweeping, lavatory, glass, kitchen equipment (i.e. griddle brick, scraper, wire brush, fiber brush, etc.)
2. Dishmachine.
3. Flashlight.
4. Fryer, french.
5. Griddle.
6. Hand tools.
8. Mixer, upright.
9. Oven.
10. Projector or Viewer, filmstrip and cassette.
11. Projector or Viewer, filmstrip and record.
13. Screen, projection.
14. Sink, three compartment.
15. Slicer, electric.
17. Video Tape Monitor.*
18. Video Tape Player.*

* Video Tape is to be produced. Script is currently available.

Printed Material


Audio/Visual

Super 8 Sound Film

Equipment
1. Bowls.
2. Broiler.
3. Fryer, deep fat.
4. Griddle.
5. Hand tools.
6. Oven.
7. Pans, egg.
8. Plater.
10. Scales, portion.
11. Stove.
12. Toaster.
13. Work Table.

Restaurant/Institutional Cook 26.03

Printed Materials

*R used only by students in Restaurant Cook program.
*I used only by students in Institutional Cook program.
*R/I used by both in both programs.
4. Quality Food Production. Lendal Kotschevar, McCutchan Publishing Corporation, 2526 Grove Street, Berkeley, California, 1964. (R/I)*
5. Understanding Cooking. Lendal Kotschevar and Donald Lundberg, The University Store, University of Massachusetts, Amherst, Massachusetts, 1965. (R/I)*

Audio/Visual
Super 8 Sound Film

Equipment
1. Bowls.
2. Breadboard. (I)*
3. Broiler. (R)*
5. Kettle, steam.
7. Measuring cups.
10. Oven.
11. Pans, baking.
13. Pans, for steamtable. (I)*
15. Pans, roasting.
19. Scoops.
20. Spatulas.
21. Steamtable. (I)*
22. Steamer, compartment.
23. Stove.

* R used only by students in Restaurant Cook program.
I used only by students in Institutional Cook program.
R/I used by both in both programs.
Restaurant Manager Trainee 26.04

Printed Materials

2. Collection of Menus
3. Cookbooks
4. Menu Planners (prepared by various food suppliers).

Audio/Visual

35 mm Filmstrip and 33 1/3 rpm record


Super 8 Sound Film


Equipment

1. Bowls.
2. Dishes.
3. Flatware.
5. Hot food container.
6. Pans, assorted.
8. Projector or Viewer, filmstrip and record.
10. Serving Equipment.
11. Screen, projection.
12. Table cloths.
13. Tables.
Printed Materials

1. Collection of Menus.
2. Cookbooks.
4. Menu Planners (prepared by various food suppliers).

Audio/Visual

35 mm Filmstrips and 33 1/3 rpm record


Super 8 Sound Film


Equipment

1. Bowls.
2. Broiler, double.
4. Dishes.
5. Flatware.
7. Hand tools.
8. Hot food container.
9. Oven.
11. Pans, baking.
12. Pan, marinade.
13. Pans, roasting.
15. Platters.
16. Projector or Viewer, filmstrip and record.
18. Salad bar.
20. Screen, projection.
22. Skewers.
25. Stove.
26. Table cloths.
27. Tables.
Printed Material


Audio/Visual

none

Equipment

1. Bag, pastry.
2. Bowls.
4. Fryer, deep fat.
5. Grate.
6. Hand tools.
8. Measuring cups.
10. Mixer, upright.
11. Oven.
13. Pans, bread.
15. Pans, muffin.
17. Pans, popover.
18. Pans, sauce.
19. Rolling pin.
20. Scales, portion.
22. Table, work.
SUPPORT RESOURCE LIST BY CURRICULUM AREA FOR

CURRICULUM AREA 26: FOOD SERVICES

Marketing & Distribution (CA 27)

Printed Materials


Audio/Visual

none

Equipment

none

Office Education (CA 24)

Printed Materials

Audio/Visual

35 mm Filmstrips

35 mm Slides and Audio Cassettes

Equipment
1. Adding machine, Monroe ten key.
2. Projector, filmstrip.
3. Screen, projection.
4. Study carrel including slide projector, screen, and cassette tape player with headphones (Media Systems Series 55 or comparable).
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 27 MARKETING & DISTRIBUTION

Marketing Operations 27.01

Printed Materials


Audio/Visual


Equipment

1. Singer Audio-Graflex 35 mm filmstrip projector or equivalent.

Merchandise Distribution Procedures 27.02

Printed Materials

2. *Receiving, Checking and Marking.* Distributive Education Instructional Materials Laboratory, University of Texas at Austin, 1969.
3. *Stockkeeping.* Distributive Education Instructional Materials Laboratory, University of Texas at Austin, 1969.

Audio/Visual


Equipment

1. Singer Audio-Graflex 35 mm filmstrip projector or equivalent.
Human Relations In Marketing 27.03

Printed Materials


Audio/Visual

35 mm Filmstrips:

3. Serving and Selling the Problem Customer. Merchandiser Film Production.
4. Store Rules Make Good Sense. Merchandiser Film Production.

Equipment

1. Singer-Graflex 35 mm filmstrip projector or equivalent.
2. Video-tape equipment.

Marketing Mathematics 27.04

Printed Materials


Audio/Visual

none

Equipment

none

Cash Register Operation 27.05

Printed Materials

3. Instruction Book, NCR.

Audio/Visual

35 mm Filmstrips:
4. Modern Cashiering Made Easy. Merchandise Film Productions.
5. Shoplifting - the Plot Against You. Merchandise Film Productions.
7. Get on the Ball - Stop Shrinkage. Merchandise Film Productions.

Video Tape Film:

Equipment

1. Addressograph Charge Card Imprinter.
2. Cash Register.
3. Singer-Graflex 35 mm Filmstrip Projector or equivalent.
4. Video tape equipment.
5. Charge slips.
7. Rain checks.
8. Refund slips.

Visual Merchandising 27.06

Printed Materials


Audio/Visual

Equipment

1. Singer-Graflex 35 mm Filmstrip Projector or equivalent.

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Basic Salesmanship 27.07

Printed Materials


Audio/Visual

35 mm Filmstrips:

5. Sales Check Procedures. International Film Bureau, Inc.

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Customer Services 27.08

Printed Materials


Audio/Visual

35 mm Filmstrips:

Equipment

1. Singer-Griflex 35 mm Filmstrip projector or equivalent.

Advanced Salesmanship 27.09

Printed Materials

6. Product Information Sources (to be selected by the student).

Audio/Visual


Equipment

1. Singer-Griflex 35 mm Filmstrip Projector or equivalent.
2. Video tape equipment
3. Three products of students choice to use for sales presentation.

Advertising and Promotion 27.10

Printed Materials


Audio/Visual

35 mm Filmstrips:

Equipment

1. Art supplies and equipment.
2. Singer-Graflex 35 mm Filmstrip Projector or equivalent.
3. Video tape equipment.

Purchasing 27.11

Printed Materials


Audio/Visual

none

Equipment

none

Business Finance and Control 27.12

Printed Materials


Audio/Visual

none
Equipment

1. Cash register.

Supervisory Skills  27.13

Printed Materials


Audio/Visual

35 mm Filmstrips:

1. A New Look at Your Job. Merchandiser Film Production.
2. Teaching a New Employee. Merchandiser Film Production.
3. Problem Employees - Cause and Cure. Merchandiser Film Production.
4. Interviewing and Hiring Store Personnel. Merchandiser Film Production.

Equipment

1. Singer-Grafex 35 mm Filmstrip Projector or equivalent.
RESOURCE LIST BY COURSE FOR 
CURRICULUM AREA 36: WELDING

Gas Welding 36.01

Printed Materials


Audio/Visual

none

Equipment

1. Oxygen-acetylene welding and cutting equipment.
2. Safety goggles.
3. Protective clothing.
4. Supplies: 4 by 1/8 or 4 by 3/16 metal stock
   4" by 4" by 1/8" sheet metal plate
   scrap practice metal
   cast iron
   bronze weld rods
   bronze flux
   pipe sections of the same diameter

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Arc Welding 36.02

Printed Materials


Audio/Visual

none
1. Arc welding equipment: 225 amp AC DD arc welder
   high frequency stabilizer
   tig torch and regulator
   mild steel welding electrode
   weld bend test equipment

2. Welding face mask.
3. Protective clothing (gloves, jacket, or apron).
4. Holding fixture.
5. Supplies: 4 by 4 by 1/5 inch metal plate
   4" by 4" by 3/8" thick mild steel
   metal stock: two 2" x 4" x 3/8" plates
   two 1" x 1/4" x 2"
   two pieces stock metal (3 x 2 x 1/4")
   metal stock: one 4" x 3" x 3/8"
   one 3" x 3" x 3/8"
   two 2" x 4" x 3/8" plates
   two 2" x 4" x 3/8" metal plates
   four 2" x 4" x 3/8" pieces of metal stock

iron
Shop Safety 37.01

Printed Materials

4. First Aid (pamphlet).
5. A Telephone Directory.

Audio/Visual

none

Equipment

1. Fire extinguisher.
2. Eye protector.
3. Hand protectors.

Tools and Equipment 37.02

Printed Materials


Audio/Visual

none
Equipment

1. Basic hand tools.
2. Precision measuring tools.
3. Jacks and lifts.
4. Presser and puller.

Brake Systems 37.03

Printed Materials

2. Automotive Service and/or Repair Manuals such as Motors Repair Manual. The Hearst Corporation, 1972, or the equivalent.

Audio/Visual

Super 8 Sound Films: Brake Work Filmstrips

1. #FAA152. Nomenclature and Adjustments. DCA Educational Products, Inc.
2. #FAA162. Disassembly Procedures. DCA Educational Products, Inc.
3. #FAA172. Assembly Procedures. DCA Educational Products, Inc.
4. #FAA182. Disassembly Procedures. DCA Educational Products, Inc.
5. #FAA192. Assembly Procedures. DCA Educational Products, Inc.
12. #FL-7772. Dual Master Cylinder Cleaning and Honing Part II. Universal Education & Visual Arts.
Equipment

1. Vehicles:
   - Needing wheel cylinder replacement.
   - Needing brake shoe adjustment.
   - Needing brake inspection.
   - With a single-unit master cylinder needing an overhaul.
   - With a dual master cylinder needing an overhaul.
   - With defective disc brake caliper.
   - Needing disc brake pad replacement.
   - Needing brake bleeding.
   - With defective power brake unit.
   - Needing emergency brake adjustment.

2. Brake fluid.
3. Caliper repair equipment.
4. Fender covers.
5. AVT System Super 8 mm Instant Film Loop Player.
6. Hand tools.
7. Jack and jack stands.
8. Brake drum.
10. New brake shoes.
14. Filmstrip projector.
15. New pads.
17. Pressure bleeder and operator's manual.
18. Power brake replacement parts.

Suspension System 37.04

Printed Materials

1. Manual for year and model of cars to be worked on.
4. Auto repair manuals. (Motors Repair Manual, the Hearst Corporation, 19/2 or equivalent).

Audio/Visual

Set of Filmstrips on Wheel Alignment

1. #FFA062. DCA Educational Products, Inc.
2. #FFA072. DCA Educational Products, Inc.
3. #FFA082. DCA Educational Products, Inc.
4. #FFA092. DCA Educational Products, Inc.
5. #FFA102. DCA Educational Products, Inc.
6. #FFA112. DCA Educational Products, Inc.
7. #FFA122. DCA Educational Products, Inc.
8. #FFA132. DCA Educational Products, Inc.
9. #FFA142. DCA Educational Products, Inc.

Filmstrips:
10. #FFA032. Run Out & Out of Balance. DCA Educational Products, Inc.
11. #FFA042. Front Wheels. DCA Educational Products, Inc.
12. #FFA052. Rear Wheels. DCA Educational Products, Inc.

Equipment

   Equipped with eccentric wheel alignment adjustment.
   With slide adjustment.
   With shim type caster adjustment.
   With shim type wheel alignment.
   Needing idler arm replacement.
   Needing new ball joints.
2. AVT System Super 8 mm Instant Film Loop Player.
4. Weights and weight hammer tool.
5. Spin balance equipment.
7. Bearing grease.
8. Hand tools.
10. Torque wrench.
11. New replacement parts for auto needing ball joints.
12. Special tools for installation.
13. Cotter keys.
14. Vehicle needing tie-rod replacement
15. Grease.
17. Creeper.
18. Idler arm.
19. Vehicle needing control arm bushing replacement.
20. New control arm bushings.
22. Special suspension system tools.
23. Alignment equipment.
25. Gearbox repair parts.
27. Power steering pumps.
29. Replacement parts for power steering pumps.
30. Power steering fluid.
31. Power steering control unit.
32. Replacement parts for power steering control unit.
33. Drain pan.
34. Power steering cylinder.
35. Replacement parts for power steering cylinder.

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**Electrical Systems 37.05**

**Printed Materials**


**Audio/Visual**

**Filmstrips:**

1. #FAA262 Load Test. DCA Educational Products, Inc., Universal Education Film Loops.
2. #FAA272 Charge-Volts Test. DCA Educational Products, Inc., Universal Education Film Loops.
3. #FAA282 Starter Current Draw Test. DCA Educational Products, Universal Education Film Loops.

**Equipment**

1. Automobiles: Needing turn signal repair.
   Needing headlight and parking light repair.
   Needing taillight or brake light repair.
   Needing instrument light repair.
   With voltage regulator.
   With defective alternator.
   With defective generator.
   With functioning charging system.
   Needing starting wiring system checked.
   With battery needing service.

2. AVT System Super 8 mm Instant Film Loop Player.
3. Baking soda and water.
5. Battery connection cleaner.
6. Fender covers.
7. Hand tools.
8. Battery charger.
10. Battery to be tested.
11. Battery testing equipment.
12. Defective Chrysler gear reduction starter.
13. Starter testing equipment.
15. Defective Ford starter.
16. Ford starter replacement parts.
17. Test equipment.
19. Charging system test equipment.
20. Generator test equipment.
21. Replacement parts as needed.
22. Alternator test equipment.
23. Alternator replacement parts as needed.
24. Regulator testing equipment.
25. Auto ignition system.
27. Turn signal replacement parts.
28. Seat cover towel.
29. Replacement parts for electrical systems.

Emission Systems 37.07

Printed Materials


Audio/Visual

none
Equipment

1. **Automobiles:** Needing PCV valve inspection and service.
   - With air pump.
   - With air injector.
   - With air pump check valve.
   - With anti afterburn valve.
   - Needing testing for combustion efficiency.
     - With Ford emission control system.
     - With Chrysler emission control system.
     - With GM emission control system.

2. **Fender cover.**
3. **Hand tools.**
4. **Equipment for testing exhaust efficiency (exhaust analyzer).**
5. **Ford emission control system parts.**

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**Tune-Up 37.08**

**Printed Materials**


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**Audio/Visual**

none

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**Equipment**

1. **Automobiles:** With a distributor.
   - Needing ignition points and condenser replaced.
   - Needing battery parts cleaned.
   - Needing timing adjusted.
   - Needing secondary ignition cables replaced.
   - Needing spark plug replacement.
   - Needing plugs serviced.
   - To test charging output.
   - With functioning starter system.
   - Needing secondary cables tested.
2. Tachometer.
3. Cylinder leakage gauge.
4. Vacuum gauge.
5. Cylinder leakage tester.
6. Fender covers.
7. Hand tools.
10. Distributor machine.
11. Ignition distributor.
12. New points and condenser.
13. Dwell meter.
14. Ohm meter.
15. Battery cable remover.
16. Battery terminal cleaner.
17. Baking soda and water.
18. Post coater or grease.
20. New spark plugs.
22. Battery load tester.
24. Core tester.
25. Charging system test equipment.
26. Battery.
27. Battery charger.
28. Voltmeter.
29. Ignition coil.
30. Coil output tester.

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Transmissions 37.10

Printed Materials

2. Service/Repair Manuals.
Audio/Visual

1. **Film**: Torque Connector, Mountain Plains.

**Equipment**

1. AVT System Super 8 mm Instant Film Loop Player.
2. **Automobile**:
   - With standard transmission.
   - With automatic transmission.
   - With two speed automatic transmission.
   - With three speed automatic transmission.
   - Needing throw-out bearing.
   - Needing clutch adjustment.
   - With clutch problem.
   - Needing new U joint.
   - With two piece propeller shaft.
   - With rear axle assembly.
   - Needing axle bearing and seal replacement.
3. Clutch aligning tool.
4. Hand tools.
5. Jack and jack stands.
7. New pressure plate.
8. Bushing puller.
10. New pilot bushing.
11. New throw-out bearing.
12. Puller.
15. Shift cover gasket.
16. Pressure test equipment.
17. Transmission jack.
18. Drain pan.
19. Cleaning fluids.
20. Two speed connector and stator.
21. Clutch units.
22. Press.
23. Solvent.
25. Cleaning solvent.
26. Bypass/Pressure Regulator Valve.
27. Magnifying glass.
28. Pump.
29. Valve body.
30. Finishing stove.
31. Trouble light.
32. Governor.
33. Servo pistons.
34. Planetary unit.
35. Thickness guage.
36. Disassembled transmission.
37. Transmission equipment.
38. Transmission fluid.
40. Pressure testing equipment.
41. Drain pan.
42. Special transmission equipment.
43. Three-speed valve body.
44. Three-speed international servo.
45. Three-speed governor.
46. Bushing driver tool.
47. Rear seal and bushing of a three-speed transmission.
48. Replacement parts.
49. File.
50. Control valve.
51. Front pump.
52. Drive line components.
53. Reverse clutch and high clutch.
54. Forward clutch.
55. One-way clutch unit.
56. Planetary gears.
57. Piston servo band.
58. Converter.
59. Disassembled three-speed transmission.
60. New U joint.
61. Axle housing equiped with differential.
62. Carrier and pinion bearings.
63. Differential unit.
64. Dial indicator.
65. White lead.
66. Slide hammer puller.
67. Axle bearing and seal (new).
68. C Clamp.
69. Hydraulic press.
70. Seal removal tool

Auto Air Conditioning 37.11

Printed Materials

Audio/Visual

none

Equipment

1. Vehicle with air conditioning.
2. Air conditioning equipment.
3. Replacement hose and fittings for air conditioning.
4. Air conditioning fluid.
5. Eye protection.
6. Fender covers.
7. Soap solution.
8. Freon.
11. Manifold and guage.
12. Vacuum pump.

Parts and Accessories  37.12

Printed Materials

3. Labor Price Conversion Chart.
5. Latest Time and Parts Manuals Available.

Audio/Visual

none

Equipment

1. Air hose and blow nozzle.
2. Air supply.
3. Stal- and parts to be cleaned.
4. Serger tool.
5. Slops standard checklist.
7. Solvent and container.
8. Cleaning equipment (rags, trash can, broom, floor cleaning soap, squeegee, etc.)
9. A customer (real or role played) requesting repair work for a vehicle needing work.
10. A work order and checklist.

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Detailing and Servicing 37.13

Printed Materials


Audio/Visual

none

Equipment

1. Automobile: Needing oil change.
   Needing oil filter change.
   Needing a lubrication job.
   Needing tires changed and/or rotated.
   Needing doors and hoods adjusted.
2. Appropriate service manuals for detailing and servicing the various makes of cars.
3. Fender covers.
4. Replacement oil.
5. Replacement oil filter.
6. Oil drain dispenser.
7. Proper band tools.
8. Hoist or jack stands and jacks.
9. Lubrication equipment and chart.
10. Tire to mount on rim assembly.
11. Tire changing equipment (rubber lubricant, hand wire brush, tire removal tool, etc.)
12. Hand tools for door adjustment.
Automotive Fuel Systems 37.06

Printed Materials

4. Service manuals.

Audio/Visual

none

Equipment

1. Carburetors and repair kits:
   - single throat
   - dual barrel
   - four barrel
   - quadrajet
   - thermoquad
2. Carburetor with:
   - automatic choke
   - automatic electric choke
3. Butcher paper.
5. Fender covers.
7. Fuel pump.
8. Gaskets.
10. Wire cleaning basket.
Engine Repair 37.09

Printed Materials

4. Service manuals.

Audio/Visual

none

Equipment

1. Anti-freeze.
2. Camshaft.
3. Connecting rods.
5. Carbon scraper.
6. Cylinder head.
7. Crankshaft bearings.
8. Dial indicator.
9. Drain pan and funnel.
10. Engine block.
11. Fender covers.
12. Flush gun and water source.
13. Hand tools.
14. Hoses and hose clamps as needed.
15. Magnifying glass.
17. Oil.
18. Oil pump (new).
19. Overhead cam head to be overhauled.
20. Overhead valve head to be overhauled.
22. Plasti-gauge.
23. Pistons.
26. R. P. M. meter.
27. Straight edge ruler.
28. Torque wrench.
30. Thermostat and gasket.
31. Thermometer.
32. Valve grind equipment.
33. Valve grind gasket set and replacement valves (if needed).
34. Valve spring compressor.
35. Wire brush with electric drill.
36. Water pump and gasket.
37. Wire.
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 38 SMALL ENGINES

Basic Small Engines 38.01

Printed Materials

8. Collection of small engine manufacturer's service manuals.
31. Work Order (forms).

Audio/Visual

2 x 2 Slides:
1. Briggs And Stratton Slide Set:
   a. Bearing replacement.
   b. Checking carburetors.
   c. Disassembly Inspection and Re-assembly Procedures.
   d. Re-sizing cylinders.
   e. Troubleshooting.
   f. Valve and seat reconditioning.

Overhead Slides:

Equipment

1. Analyzer/tester, ignition, model 98.
2. Balancer, blade, lawn mower.
3. Bits, drill set (1/16" to 1/2").
5. Chisel, set (assorted).
6. Coils, ignition (assortment).
7. Condensers, ignition (assortment).
10. Engine, 2-cycle (cutaway).
11. Engine, 4-cycle.
12. Engine, water cooled.
13. Engines, with various types of ignition systems.
15. Gauges, feeler (flat & wire).
17. Gauge, telescoping.
18. Grinder, bench.
20. Holder, flywheel (Briggs & Stratton).
22. Micrometer, inside/outside.
23. Mower, lawn power.
24. Pilot, for reamers (Briggs & Stratton).
25. Projector, overhead.
26. Projector, slide.
27. Pullers, assorted.
29. Punch, set (assorted).
30. Reamers, bushing (Briggs & Stratton).
31. Reamers, set (Briggs & Stratton).
32. Scales, steel.
33. Screen, projection.
34. Tester, coil and condenser (Graham Model 51).
35. Tools, hand: tool box with tray
   pad lock
   pliers (needle nose, diagonal, slip joint)
   raw hide mallet (no. 3).
   ball peen hammer (12 oz.)
   3/8" drive
   13/16" spark plug socket
   ratchet, husky
   extension, 12 ft. and 5 ft.
   break over handle
   speed handle
   9 piece metric socket set
   swivel
   swivel sockets, sizes 1/2" and 9/16"
   plastic mallet, 12 oz.
   impact driver with bits
   standard sockets, sizes 3/8", 7/16", 1/2", 9/16", 5/8",
   11/16", 3/4", 13/16", 7/8"
   deep sockets, sizes 1/2", 9/16", 5/8", 11/16", 3/4", 13/16"
   4 piece phillips screwdriver set
   4 piece slot head screwdriver set
   combination end wrench, sizes 1/4", 3/8", 7/16", 1/2", 9/6",
   5/8", 7/8", 15/16", 1/11"
   10 piece metric wrench set
36. Tools, special (Lawnboy):
   air gap gauge
   bearing installer
   bearing remover
   crankshaft guide
   engine stand
   governor gauge
   piston stop
   ring compressor
   seal installer
37. Tool, valve facing.
38. Tool, valve seat finishing.
39. Wrench, clutch.
40. Wrench & sockets, air impact.
41. Wrench, torque (1/4" & 3/7").
Chainsaw 38.02

Printed Materials


Audio/Visual

none

Equipment

1. Chainsaw.
2. File, chainsaw (assortment).
4. Test equipment, electrical:
   - Yamaha electrical tester
   - point checker
   - meter, multi
   - timing light
   - Graham coil tester
   - Merc-o Tronic coil tester
5. Tools, hand:
   - tool box with tray
   - pad lock
   - pliers, needle nose, diagonal, slip joint
   - raw hide mallet (no. 3)
   - ball peen hammer (12 oz.)
   - 3/8" drive
   - 13/16" spark plug socket
   - ratchet, husky
   - extension, 12 ft and 5 ft
   - break over handle
   - speed handle
   - 9 piece metric socket set
   - swivel
   - swivel socket, 1/2" and 9/16"
   - plastic mallet 12 oz.
   - impact driver with bits
   - deep sockets; sizes 1/2", 9/16", 5/8", 11/16", 3/4", 13/16"
   - 4 piece phillips screwdriver set
   - 4 piece slot head screwdriver set
   - 10 piece metric wrench set
6. Wrench and sockets, air impact
Printed Materials

2. Snowmobile Manufacturer's Service Manuals (collection).

Audio/Visual

none

Equipment

1. Gun, pop rivit.
2. Jack.
3. Pullers, flywheel, assorted.
4. Snowmobile (one with bogie wheel suspension and one with slide rail suspension).
5. Test equipment, electrical:
   - Yamaha electro-tester
   - point checker
   - meter, multi
   - timing light
   - Graham coil tester
   - Merc-o Tronic coil tester
6. Tools, hand:
   - tool box with tray
   - pad lock
   - pliers, needle nose, diagonal, slip joint
   - raw hide mallet (no. 3).
   - ball peen hammer (12 oz.)
   - 3/8" driver
   - 13/16" spark plug socket
   - ratchet, husky
   - extension, 12 ft and 5 ft
   - break over handle
   - speed handle
   - 9 piece metric socket set
   - swivel
   - swivel socket, 1/2" and 9/16"
   - plastic mallet 12 oz.
   - impact driver with bits
   - deep sockets; sizes 1/2", 9/16", 5/8", 11/16", 3/4", 13/16"
   - 4 piece phillips screwdriver set
   - 4 piece slot head screwdriver set
combination end wrench; sizes 1/4", 3/8", 7/16", 1/2", 9/6", 5/8", 7/8", 15/16", 1/11"
10 piece metric wrench set
7. Track repair kit.
8. Welding equipment, arc.
9. Welding equipment, gas.
10. Wrench and sockets, air impact.

Motorcycles 38.04

Printed Materials
1. Motorcycle manufacturer's service manuals collection.

Audio/Visual
none

Equipment
1. Dial indicator with clamp.
2. Jig, wheel alignment.
3. Motorcycle.
4. Pullers, flywheel, assorted.
5. Test equipment, electrical:
   - Yamaha electro tester
   - point checker
   - meter, multi
   - timing light
   - Graham coil tester
   - Merc-o Tronic coil tester
6. Timing kit, mechanical.
7. Tire patching kit.
8. Tires, motorcycle.
9. Tools, hand: tool box with tray
   - pad lock
   - pliers, needle nose, diagonal, slip joint
   - raw hide mallet (no. 3)
   - ball peen hammer (12 oz.)
   - 3/8" driver
   - 13/16" spark plug socket
   - ratchet, husky
extension, 12 ft and 5 ft
break over handle
speed handle
9 piece metric socket set
swivel
swivel socket, 1/2" and 9/16"
plastic mallet 12 oz.
impact driver with bits
deep sockets, sizes 1/2", 9/16", 5/8", 11/16", 3/4", 13/16"
4 piece phillips screwdriver set
4 piece slot head screwdriver set
10 piece metric wrench set

11. Wheels, motorcycle.
12. Wrench, nipple.
13. Wrench and sockets, air impact.

Outboard Engines 38.05

Printed Materials

3. Outboard engine manufacturer's service manuals collection.

Audio/Visual

none

Equipment

1. Outboard engine.
2. Pullers, flywheel, assorted.
3. Test equipment, electrical:
   Yamaha Electro tester
   point checker
meter, multi
timing light
Graham coil tester
Merc-o Tronic coil tester

A. Timing kit, mechanical.

5. Tools, hand:

- tool box with tray
- pad lock
- pliers, needle nose, diagonal, slip joint
- raw hide mallet (no. 3)
- ball peen hammer (12 oz.)
- 3/8" driver
- 13/16" spark plug socket
- ratchet, husky
- extension, 12 ft and 5 ft
- break over handle
- speed handle
- 9 piece metric socket set
- swivel
- swivel socket, 1/2" and 9/16"
- plastic mallet 12 oz.
- impact driver with bits
- deep sockets, sizes 1/2", 9/16", 5/8", 11/16", 3/4", 13/16"
- 4 piece phillips screwdriver set
- 4 piece slot head screwdriver set
- 10 piece metric wrench set

6. Wrench and sockets, air impact.
SUPPORT RESOURCE LIST BY CURRICULUM AREA FOR
CURRICULUM AREA 38: SMALL ENGINES

Welding Support (CA: 36)

Printed Materials


Audio/Visual

none

Equipment

1. Arc welding equipment: 225 amp AC/DC arc welder
   high frequency stabilizer
   tig torch and regulator
   mild steel welding electrode
2. Holding fixture.
3. Oxygen-acetylene welding and cutting equipment.
4. Protective clothing (gloves, jacket or apron).
5. Safety goggles.
6. Supplies: cast iron
   bronze flux
   bronze weld rods
   metal stock (1/8", 1/5", 1/4" and 3/8" thick)
   pipe sections (same diameter)
   scrap metal (practice).
7. Test equipment, weld bend.
8. Welding face mask.
Before beginning the Career Guidance Curriculum Area at Mountain-Plains, the student will have completed several kinds of occupational aptitude and interest tests. The student profiles of the following tests will be used in the courses.

General Aptitude Test Battery - U.S. Department of Labor, Manpower Administration, Washington, D.C.


Minnesota Interest Questionnaire - Gay et al, Minnesota Administration.

Career Guidance 46.01

Printed Materials


Audio/Visual

A library of filmstrips and tapes is available in the Career Guidance Center but are not required by the LAPs.

Equipment

1. 35 mm Filmstrip/Cassette projector.
Printed Materials


Audio/Visual

A library of filmstrips and tapes is available in the Career Guidance Center but are not required by the LAPs.

Equipment

1. 35 mm Filmstrip/Cassette projector.
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 47: WORLD OF WORK

World of Work 47.01

Printed Materials


Audio/Visual

Filmstrip/Cassette


Equipment

1. Filmstrip/Cassette viewer.
2. Video-tape equipment.
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 51: HEALTH EDUCATION

Introduction to Health Education 51.01

Printed Materials


Audio/Visual


Equipment

1. Resusci-Anne, Sample First Aid Kit, Practoplast Burn examples.

Family Health 51.02

Printed Materials

1. Home Nursing Programmed Instruction Students Manual. American Red Cross,
Audio/Visual

35 mm Filmstrips


Equipment

none
RESOURCE LIST FOR
CURRICULUM AREA 61 CONSUMER EDUCATION

Consumer Education 61.01

Printed Materials

1. RecOr' Book: Food, Clothing and Shelter. Modern Consumer Education, Grolier Educational Corporation, New York, N. Y. (used in conjunction with tape "A Place to Rent").

Audio/Visual

35 mm Filmstrips:


Cassette Tapes:

3. A Place to Rent. Modern Consumer Education, Grolier Educational Corporation. (Used in conjunction with "Record Book: Food, Clothing and Shelter" above.)

Equipment

1. 35 mm Filmstrip Projector.
2. Cassette Tape Player.
RESOURCE LIST BY COURSE FOR

CURRICULUM AREA 63: HOME MANAGEMENT

Home Management 63.01

Printed Materials


Audio/Visual

.35 mm Filmstrips

3. Color Display (to be made by instructor).
4. Display of Fabric Textures and Patterns (to be made by instructor).

Equipment

1. 35 mm Filmstrip projector.
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 66: PARENT INVOLVEMENT

Interaction With Children 66.01

Printed Materials


Audio/Visual

35 mm Filmstrip/Cassettes


16 mm Filmstrip

6. Reward and Punishment. CMR Educational Film Library.

Equipment

1. 35 mm Filmstrip/record projector.
2. 35 mm Filmstrip/cassette projector.
3. 16 mm Filmstrip projector.

Infant and Toddler 66.02

Printed Materials

Audio/Visual

35 mm Filmstrip/Cassette


Equipment

1. 35 mm Filmstrip/Cassette projector.

The Pre-School Child 66.03

Printed Materials


Audio/Visual

35 mm Filmstrip/Cassette


Equipment

1. 35 mm Filmstrip/Cassette projector.
Middle-Age Child (.04)/Adolescence (.05)

No outside resources. All printed materials are attached to the LAP.
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 70 CARPENTER

Printed Materials

1. Blueprint Reading and Sketching, Carpentry Trades, Residential.
2. Carpentry. United Brotherhood of Carpenters and Joiners of America,
   in cooperation with the National Ready Mixed Concrete Association,
4. Modern Carpentry. Willis H. Wagner, The Goodheart-Wilcox Company,

Audio/Visual

none

Equipment

1. Bar, flat rip.
2. Bit, auger set.
4. Chisel, wood set (¼" to 1¼")
5. Cutters, wire side.
7. Cutter, bolt.
8. Drill, electric hand.
11. Hatchet, shinglers.
12. Knife, utility.
13. Level, spirit.
15. Line, dry.
17. Plumb bob.
18. Rod, leveling.
21. Saw, power hand.
22. Saw, radial arm.
23. Saw, saber
25. Screwdriver, phillips set.
27. Shears, tinner.
28. Square, combination.
29. Square, framing.
30. Square, T-level.
31. Stapler, hammer type.
32. Tape Measure (16 ft. & 50 ft.)
33. Transit.
34. Wrench, adjustable.

Finish 70.02

Printed Material

1. Blueprint Reading and Sketching, Carpentry Trades, Residential.
2. Cabinetmaking and Millwork. John L. Ferier, Charles A. Bennett
3. Carpentry. United Brotherhood of Carpenters and Joiners of America,
4. Modern Carpentry. Willis H. Wagner, The Goodheart-Wilcox Company,

Audio/Visual

none

Equipment

1. Bar, flat rip.
2. Bits, expansive.
5. Chisels, wood set (¼" to 1¼")
6. Drill, electric hand.
8. Level, spirit.
10. Line, dry.
15. Knife, utility.
16. Miter box.
17. Nail set, ret of.
18. Plane, block.
19. Plane, power hand.
20. Planer, thickness.
22. Router, portable.
23. Router, trim (plastic laminate)
24. Templates, door hinge.
25. Template, door latch.
27. Sander, belt stationary.
28. Sander, disc stationary.
29. Sander, orbital.
30. Saw, back.
31. Saw, band.
32. Saw, coping.
33. Saw, electric portable.
34. Saw, hack.
35. Saw, hand crosscut.
36. Saw, power hand.
37. Saw, power miter.
38. Saw, radial arm.
39. Saw, scroll hand.
40. Saw, table.
41. Screwdriver, phillips set.
42. Screwdriver, slot set.
43. Shears, tinner.
44. Spreader, mastic.
45. Square, combination.
46. Square, framing.
47. Square, T-level.
48. Stapler, hammer type.
49. Stapler, T-3 Bostick.
50. Tape measure (16 ft.)

General Procedures & Practice for Building Trades & Services 70.03

Printed Materials


Audio/Visual

none

Equipment

none
SUPPORT RESOURCE LIST BY CURRICULUM AREA FOR

CURRICULUM AREA 70: CARPENTER

Draftsman (CA 79)

Printed Materials


Audio/Visual

none

Equipment

1. Compass.
2. Scale, architect.
3. Scale, engineer.
4. Triangles (30° x 60° & 45°).
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 71 ELECTRONICS ASSEMBLER

Preparation for Electronic Assembly 71.01

Printed Materials


Audio/Visual

none

Equipment

1. Aid, soldering.
2. Board, jig.
An assortment of: batteries
capacitors
crystals
diodes
electron tubes
electron tube sockets
fuses
hardware
inductors
integrated circuits
jacks
plugs
printed circuit boards
relays
resistors
semiconductor rectifiers
semiconductors
speakers
switches
terminals
transistors
wire

5. Conductors, electrical (assortment).
6. Connectors, electrical cable (assortment).
7. Copper, sheet.
8. Drawing instruments.
10. Gun, soldering.
12. Kit, decade capacitance Model IN-27, Heathkit Inc.
13. Kit, decade resistance Model IN-17, Heathkit Inc.
14. Kit, resistance substitution Model IN-37, Heathkit Inc.
15. Lace, tying.
16. Lugs, terminal valve (assortment).
17. Meter, volt-ohm.
19. Pencil, soldering (50 watt).
20. Protective devices, wire harness.
21. Printed circuit panel, Motorola Model KA, Motorola, Inc.
22. Radio, Heathkit Model EK-2, Heathkit Inc.
23. Rule, yard.
24. Rule, foot, metal.
25. Scale, meter, metal.
26. Tape, measuring, steel (10 ft.)
27. Tools, hand. (Service Master Kit 995M or equivalent - Xcelite 995M kit, Jensen Tools and Alloys, 4117 North 44th Street, Phoenix, Arizona.)
28. Tools, power (grinder, bench, 6-inch; drill, hand, ¼" chuck.)
29. Wire, 20 gauge.
Electronic Assembly 71.02

Printed Materials


Audio/Visual

none

Equipment

1. Gun, soldering.
2. Kit, Basic Radio, Model ER-2B, Heathkit Inc.
3. Meter, volt-ohm.
4. Pencil, soldering (50 watt).
5. Signal generator, R.F.
6. Tools, hand (Service Master Kit 995M or equivalent - Xcelite 995M Kit, Jensen Tools and Alloys, 4117 North 44th Street, Phoenix, Arizona.)
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 72 ELECTRICAL WIREMAN

Electrical Wiring Rough-In 72.01

Printed Materials.

   Association, 470 Atlantic Avenue, Boston, Massachusetts.

Audio/Visual

Film Loops:

2. Connecting Wires in an Outlet Box. Produced by: Fairfield Associates,
   Distributed by: Jam Handy Organization.
6. Installing a Convenience Outlet. Produced by: Fairfield Associates,
   Distributed by: Jam Handy Organization.
10. Outlet Box Installation. Produced by: Fairfield Associates, Distributed
    by: Jam Handy Organization.
14. Rewiring a Lamp. Produced by: Fairfield Associates, Distributed by:
    Jam Handy Organization.
16. The Third Wire Can Save Your Life. Produced by: Fairfield Associates,
    Distributed by: Jam Handy Organization.
17. Toggle Switch Installation. Produced by: Fairfield Associates,
    Distributed by: Jam Handy Organization.
19. Wiring a Box with Armored Cable. Produced by: Fairfield Associates,
    Distributed by: Jam Handy Organization.
20. Wiring an Attachment Plug. Produced by: Fairfield Associates,
    Distributed by: Jam Handy Organization.
Audio Cassette Tape:

21. Narration for Each of the Film Loops Listed, Mountain-Plains Education & Economic Development Program, Inc., P.O. Box 3078, Glasgow, Montana.

Equipment

1. Awl, scratch.
2. Bender, conduit (Hickey).
5. Cutter, cable.
6. Cutter, pipe.
8. Knife, electricians.
9. Nutdriver, variable size (¼" to 7/16")
10. Plier, cutting, long nose.
11. Plier, high leverage.
12. Plier, oblique cutting, high leverage.
13. Plier, pump (size 10).
15. Rule, tape (12 ft 3/4")
17. Screwdriver, Phillips (number 2: 8 inch).
18. Screwdriver, slot (3/16"x4", 3/16"x9", ¼"x4" and ¼"x6")
19. Tape, fish.
20. Tool, all purpose (wire stripper, crimpler and cut’r).
21. Wiring boards: Metal clad cable.
   Rigid metal conduit
   Non-metallic-sheathed cable.
   Low voltage door bell wiring.
   Electrical metallic tubing.
   Residential burglar and fire alarm system.
   Commercial single phase 120/240 volts AC system.
   Residential single phase 120/240 volts AC system.
   Surface raceways.
   Non-metallic wiring devices.
   Low voltage and communications signal circuits.
22. Wrench, adjustable (size 8).
Electrical Wiring Trim-Out 72.02

Printed Materials


Audio/Visual

Film Loops: by Hubbard Scientific Company, Northbrook, Illinois.

1. Alternating Current.
2. Electric Generator.
3. The Electric Motor I and II.
5. Electromagnetic Generator.
7. Electroscope I and II.
8. Electrostatic Induction.
10. Inductive Field.
12. Magnetic Field.
15. Permanent Magnets.
17. Polarity of Static Charges.
18. Poles Occur in Pairs.

Audio Cassette Tape:

20. Narration for Each of the Film Loops Listed, Mountain-Plains Education & Economic Development Program, Inc., P.O. Box 3078, Glasgow, Montana.

Equipment

1. Ampre.
2. Awl, watch.
3. Hammer, electricians.
5. Lamp, test.
7. Nutdriver, variable size (¼" to 7/16")
8. Plier, cutting, long nose.
9. Plier, high leverage.
10. Plier, oblique cutting, high leverage.
11. Plier, pump (size 10).
12. Pouch, tool (5 pocket).
15. Screwdriver, slot (3/16" x 4, 3/16"x9, 1/4"x4, & 1/4"x6).
16. Tool, all purpose (wire stripper, crimper and cutter).
17. Wiring boards: (Hickok Teaching Systems, Inc., Woburn, Mass.)
   Metal clad cable.
   Rigid metal conduit.
   Nonmetallic sheathed cable.
   Low voltage door bell wiring.
   Electrical metallic tubing.
   Residential burglar and fire alarm system.
   Commercial Single Phase 120/240 volts AC system.
   Residential Single Phase 120/240 volts AC system.
   Surface raceways.
   Nonmetallic wiring devices.
   Low voltage and communications signal circuits.
18. Wrench, adjustable (size 8).
Draftsman (CA 79)

Printed Materials

Audio/Visual
none

Equipment
1. Compass.
2. Scale, architect.
3. Scale, engineer.
4. Triangles (30° x 60° & 45°).

Radio & Television Serviceman (CA 77)

Printed Materials

Audio/Visual
none
Equipment

1. Battery eliminator.
2. Electricity/Electronics, "C" Case-Combination Learning Unit, portable, Model BG850 A/C, Brodhead-Garrett, 161 Commerce Circle, Sacramento, California.
3. Soldering iron.
4. Service Master Kit 995m or equivalent, Xcelite 995m Kit, Jensen Tools and Alloys, 4117 North 44th Street, Phoenix, Arizona.
5. Electrician's knife.
6. Vacuum tube volt meter.
7. Volt-Ohm meter.
9. Regulated power supply.
10. Soldering tools.
11. Stop watch.
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 73 PLUMBER

Drainage and Vent Systems 73.01

Printed Materials


Audio/Visual

none

Equipment

1. Bits, auger (set).
2. Cutter, pipe, hand.
3. Cutter, pipe, plastic.
5. Dies, hand (assortment).
6. Drill, electric (with angle head).
7. Furnace, lead, melting.
8. Hacksaw, power.
10. Irons, caulking.
11. Ladel, lead handling.
13. Plugs, test (assortment).
15. Pot, lead.
16. Reamer.
17. Ropes, lead running.
18. Taps, pipe (assortment).
19. Threader, pipe, power (portable).
20. Trender/Reamer/Cutter, pipe, power combination.
22. Auger, drain.
23. Tools, basic (plumber): bit, drill (set) (1/16 to 1/4 inch) box, tool chalk line cutter, tubing (1/8 to 5/8 inch)
cutter, tubing (imp)
flaring tool
hacksaw
hammer, claw (15 oz.)
plier, channel lock
rule, steel (12 ft.)
screwdriver (4 in one)
square, combination (12 inch)
wrench, Allen (set)
wrench, open-end, adjustable (6 and 8 inch)
wrench, open-end/box, combination (3/8 to 3/4 inch)
wrench, pipe (12 inch)

24. Vice, pipe.
25. Wrench, chain.
27. Wrench, pipe (14, 18, 24 and 36 inch).
29. Wrench, torque.

Supply Piping Systems 73.02

Printed Materials

1. Collection of plumbing supply catalogs.
2. Collection of manufacturer's specification sheets.
11. Requisition (forms).
Audio/Visual

none

Equipment

1. Bits, auger (set).
2. Brushes, fitting, cleaner (assorted).
3. Cutter, pipe, hand.
4. Cutter, pipe, plastic.
5. Cutter, pipe, soil.
6. Dies, hand (assortment).
7. Drill, electric (with angle head).
8. Furnace, lead melting.
9. Hacksaw, power.
11. Irons, caulking.
12. Iron, soldering (Presolite attachment).
13. Ladel, le., handling.
15. Plumb bob.
16. Pot, lead.
17. Reamer.
18. Ropes, lead running
20. Tapes, pipe (assortment).
21. Threader, pipe, power (portable).
22. Trender/Reamer/Cutter, pipe, pow.: combination.
23. Analyser, heating system.
24. Bender, tube.
25. Bender, tube (spring).
26. Tools, basic (plumber): bit, drill (set)(1/16 to 1/4 inch)
     box, tool
     chalk line
     cutter, tubing (1/8 to 5/8 inch)
     cutter, tubing (imp)
     flaring tool
     hacksaw
     hammer, claw (16 oz.)
     plier, channel lock
     rule, steel (12 ft.)
     screwdriver (4 in one)
     square, combination (12 inch)
     wrench, Allen (set)
     wrench, open-end, adjustable (6 and 8 inch)
     wrench, open-end/box, combination
     (3/8 to 3/4 inch)
     wrench, pipe (12 inch)
27. Torch and tank, Presoto Lite or equivalent.
28. Torch, oxygen-acetylene set (complete).
29. Vice, pipe.
30. Wrench, basin.
31. Wrench, chain.
32. Wrench, compound.
33. Wrench, faucet seat.
34. Wrench, pipe (14, 18, 24 and 36 inch).
35. Wrench, socket (set).
36. Wrench, strap.
37. Wrench, torque.

General Procedures and Practices for Building Trades and Services 73.03

Printed Materials


Audio/Visual

none

Equipment

1. Caliper, vernier.
SUPPORT RESOURCE LIST BY CURRICULUM AREA FOR
CURRICULUM AREA 73: PLUMBER

Draftsman (CA: 79)

Printed Materials


Audio/Visual

none

Equipment

1. Compass.
2. Scale, architect.
3. Scale, engineer.
4. Triangles (30° x 60° & 45°).
RESOURCES LIST BY COURSE FOR
CURRICULUM AREA 74 HEATING SYSTEMS SERVICEMAN

Heating Systems and Servicing 74.01

Printed Materials

8. Manufacturer's operating procedures and specifications for the trainer or equivalent heating system.

Audio/Visual

Slides and Audio Cassettes:


Equipment

1. Mirror, inspection.
2. Test equipment, heating:
   - air velocity meter
   - analyser heating systems
   - analyser thermal moist-temp
   - gauge, pressure
   - manometer
   - oxygen and carbondioxide indicator
   - sling psychrometer
   - smoke tester
   - thermometer
3. Tools, hand (basic):
   - brush, longhandled
   - plier, combination (6 inch)
   - plier, electricians (6 inch)
   - plier, slim nose (6 inch)
   - screwdriver, blade (set)
   - screwdriver, Phillips (set)
   - wrench, open-end (set)
4. Trainer, heating systems (or equivalent):
   - gas fired
   - oil fired
   - forced air
   - hydronic
5. Water heater, gas fired.
6. Player, audio cassette.
7. Projector, 2 x 2 slide.
RESOURCE LIST BY COURSE FOR

CURRICULUM AREA 75 REFRIGERATION/COOLING SYSTEMS SERVICEMAN

Refrigeration/Cooling Systems 75.01

Printed Materials

1. Collection of Refrigeration parts catalogs.

Audio/Visual

Slides and Cassettes:


Equipment

1. Adapters, service valve (assortment).
2. Amprobe.
3. Analyser, electrical.
4. Analyser, hermetic.
5. Beaker, small.
7. Brush, approximately 1 inch.
8. Container, quart, open top.
10. Detector, leak:  
   a) lite touch type  
      b) electronic type
12. File, mill (fine).
15. Goggles, safety.
16. Kit, attachment (Hermetic service valve).
17. Knife, electrician’s.
18. Lighter, spark.
19. Meter, volt-ohm.
20. Meter, watt.
21. Player, audio cassette.
22. Projector, slide (2 x 2).
23. Pump, high vacuum.
24. Scale, weighing.
26. Tablespoon.
27. Thermometer, dial.
29. Thermometer, glass stemmed (C°).
30. Thermometer, glass stemmed (F°).
31. Thermometer, recording.
32. Tools, basic serviceman:
   - tool box
   - 1/8" to 1" tubing cutter
   - 1/8 to 5/8 Imp tubing cutter
   - pinch off tool 1/4 to 1/2
   - tap-a-can valve
   - 1/2 plug
   - 5/8 OD test plug
   - 3/8 OD test plug
   - inner outer reamer
   - spring tube benders 1/4, 3/8, 1/2, 5/8
   - ratchet wrench
   - swaging tool 1/4, 3/8, 1/2 and 5/8 OD
   - 10" crescent wrench
   - 8" crescent wrench
   - ball peen hammer
   - pliers
   - diagonal cutter
   - double flaring tool
   - 8 ft. steel tape
   - 6" fiat file
   - long nose pliers
   - screwdriver, blade, 4", 6", and 8"
   - flare nut wrench set, 3/8, 7/16-1/2, 9/16-5/8, 11/16
   - guage manifold set with hoses
33. Torch, oxygen-acylene outfit (complete).
34. Trainer, Air Conditioning Service (Allen Russell Associates).
35. Training Unit, refrigeration (Model 9001 Basic, Model 9501 Commercial or equivalent), Thermal Engineering Company.
36. Valve, service (tap-a-line).
37. Wrench, open end (set).
38. Wrench, socket (set).
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 76 APPLIANCE SERVICEMAN

Heater-Type Appliances 76.01

Printed Materials

1. Appliance Service Manuals for appliances used in the program.
2. Catalogs, appliance supply (assortment).

Audio/Visual

none

Equipment

1. Amprobe (RS-3 Rotary meter B-A).
2. Box, utility.
3. Chisels, (1/2" and 5/8").
4. Cutters, diagonal.
5. Gun, Soldering (100-140 watt).
6. Hammer, ball peen (12 oz.).
7. Hammer, plastic tip (6 oz. & 12 oz.).
8. Heater, space electric.
9. Heater, water, electric.
11. Iron, electric.
12. Kit, solderless terminal.
14. Level, aluminum 18".
15. Meter, volt-ohm.
16. Meter, watt.
18. Pliers, channel-lock (10").
19. Plier, long nose.
20. Plier, slip joint.
21. Plier, vise grip (size 7").
23. Range, electric.
24. Range, gas.
25. Roaster, electric.
27. Screwdriver, Phillips (set).
28. Tape, steel measuring (12 ft).
29. Wrench, adjustable.
30. Wrench, combination set.
31. Wrench, hex & spline (kit).
Printed Materials

1. Appliance Service Manuals for appliances used in the program.
2. Catalogs, appliance supply (assortment).

Audio/Visual

none

Equipment

1. Amprobe, (RS-3 Rotary Meter R-A).
2. Blender, food, electric.
3. Box, utility.
4. Chisels (1/2" and 5/8").
5. Cleaner, vacuum, electric.
6. Compactor, electric, automatic.
7. Cutters, diagonal.
8. Dishwasher, automatic.
9. Disposer, garbage.
10. Dryer, clothes (electric, automatic).
12. Gun, soldering (100-140 watt).
13. Hammer, ball pein (12 oz.).
14. Hammer, plastic tip (6 oz. & 12 oz.).
15. Kit, solderless, terminal.
16. Level, aluminum 18".
17. Meter, volt-ohm.
18. Meter, watt.
19. Mixer, food, electric.
21. Plier, channel-lock (10").
22. Plier, long nose.
23. Plier, slip joint.
24. Plier, vise grip (size 7").
25. Polisher, "floor, electric.
27. Screwdriver, blade (set).
29. Tape, steel measuring (12 ft.).
30. Washer, clothes, automatic.
31. Wrench, adjustable.
32. Wrench, combination set.
33. Wrench, hex & spline (set).
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 77 RADIO & TELEVISION SERVICEMAN

D. C. Circuits 77.01

Printed Materials


Audio/Visual

none

Equipment

1. Battery eliminator.
2. Electricity/Electronics, "C" Case-Combination Learning Unit - Portable, Model BG850A/C, Brodhead-Garrett, 161 Commerce Circle, Sacramento, California, 95815.
3. Soldering iron.
4. Service Master Kit 995m or equivalent, Xcelite 995m Kit, Jensen Tools and Alloys, 4117 North 44th Street, Phoenix, Arizona.
5. Electrician's knife.
6. Vacuum tube volt meter.
7. Volt-Ohm meter.
9. Regulated power supply.
10. Soldering tools.
11. Stop watch.

A.C. Circuits 77.02

Printed Materials


Audio/Visual

none
Basic Radio Theory & Component Assembly 77.03

Printed Materials


Audio/Visual

Equipment

none

1. Alignment tool set.
3. Decade capacitor box.
4. Decade resistor box.
5. Substitution resistor box.
6. Capacitor checker.
8. Vacuum tube checker.
10. Audio generator.
11. RF Signal generator.
12. Impedance bridge.
13. Desoldering iron.
15. Signal tracers.
17. Battery eliminator.
18. Soldering iron.
19. Service Master Kit 995m or equivalent, Xcelite 995m Kit, Jenson Tools and Alloys, 4117 North 44th Street, Phoenix, Arizona.
20. Vacuum tube volt meter.
22. Soldering tools.
Television Repair 77.04

Printed Materials


Audio/Visual

Super 8 Sound Film:


Equipment

1. Cathode ray tube checker.
2. Function generator.
4. Sweep/Marker generator.
5. Soldering gun.
6. Projector, Super 8 Sound Film, Model 60, Hickok Teaching Systems, Inc., Woburn, Massachusetts.
10. Alignment tool set.
11. Decade capacitor box.
12. Decade resistor box.
13. Substitution resistor box.
15. Transistor F.E.T. checker.
17. Flashlight.
18. Audio generator.
19. Impedance bridge.
20. Desoldering iron.
22. Desoldering tools.
24. Kit, Service Master 995m or equivalent, Xcelite 995m Kit, Jensen Tools and Alloys, 4117 North 44th Street, Phoenix, Arizona.
25. Meter, vacuum tube volt.
27. Tools, soldering.
RESOURCE LIST BY COURSE FOR CURRICULUM AREA 79 DRAFTSMAN

Basic Drawing 79.01*

Printed Materials

2. Catalog collection (Building Trades supplies).

Audio/Visual

none

Equipment

1. Adapter, compass.
2. Blue/Black line printer.
4. Cutter, paper (24 inch or larger).
5. Drawing set.
6. Eraser, electric.
7. Erasing shield.
8. Holder, lead.
9. Holder, pen (Leroy).
11. Lead pointer.
12. Lettering guide, Ames or equivalent.
13. Lettering instrument, mechanical (Leroy or equivalent).
14. Pens, Radiograph (#00, 0, 1 & 2).
15. Protractor.
16. Scale, architect.
17. Scale, engineer.
18. Sissors

* Draftsman takes only Course 79.01. Course 79.02 is support for programs of Building Trades & Services students.
20. Stool, drafting.
21. Table, drafting (with T-square, parallel rule and/or drafting machine).
22. Templates, assorted.
23. Templates, ellipse.
24. Templates, Leroy (#120, 140 & 175).
25. Triangles (30° x 60° & 45°).

Blueprint Reading 79.02

Printed Materials


Audio/Visual

none

Equipment

1. Compass.
2. Scale, architect.
3. Scale, engineer.
4. Triangles (30° x 60° & 45°).
RESOURCE LIST BY COURSE FOR
CURRICULUM AREA 78 ELECTRIC MOTOR REPAIRMAN

Electric Motor Repair 78.01

Printed Materials

6. Requisitions (forms).
7. Set of manufacturer's electric motor service manuals, specifications and data sheets.
8. Work Order (form).

Audio/Visual

Display Boards:

1. Shaded-pole motor.
2. Split-phase motor.


4. Electric Generator.
5. Electromagnetic Force.
8. The Electromagnets.
10. Inductive Field.
11. Magnetic Field.
12. Magnetic Poles.
15. Reversing Polarity.
16. The Solenoid.
Equipment

1. Equipment, special: chisel, coil stripping
   coil shapers
   insulation former
   winder, armature
   winder, coil.

2. Equipment, test: amprobe
   analyser, motor test (model EMTC, Vega Enterprises)
   growler, internal and external
   meter, volt-ohm
   tachometer.

3. Generator, electric (direct current).

4. Learning Unit, Electricity/Electronics, "C" Case-Combination, Portable,
   Model BG850 A/C, Bradford-Garrett, 161 Commerce Circle, Sacramento,
   California, 95815.

5. Motor, electric: three-phase
   split-phase induction
   capacitor start
   repulsion
   direct current
   universal
   shaded-pole.

6. Power supply, variable AC (0-25 volts).

7. Tools, basic: box, tool (18 x 8 x 9)
   chisel, cold
   crimpers, lug
   cutters, diagonal
   gauge, circular
   hacksaw
   hammer, ball peen
   nut driver set
   plier, arc joint
   plier, coil tamping
   plier, lineman's
   plier, long chain-nose
   plier, snap-ring (internal and external)
   puller, pulley
   punch, center
   screwdriver, blade (set)
   wire skinner/straightener
   wrench, locking plier
Leadership Training Workshop 81.01

Printed Materials


Audio/Visual

16 mm Films:


Equipment

1. Presentation Easel and Marking Pencils.
2. 16 mm Projector.

Leadership Training Workshop II 81.02

Printed Materials


Audio/Visual

16 mm Films:
6. All I Need is a Conference. Henry Strauss Associates, Perennial Education, Inc.

Equipment

1. 16 mm Film Projector.
2. Flash cards made by instructor