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ABSTRACT

This booklet is intended to serve as a mechanism whereby special educators and vocational instructors can work cooperatively in developing an Individualized Educational Plan (IEP) for special needs students. The planner identifies appropriate occupational areas (horticulture, apparel assembly, carpentry, food service, and plumbing) and then proceeds to determine the vocational, safety, mathematics, and vocabulary tasks necessary for minimum performance in the occupation. Each section of the planner contains some or all of the following: shop name and subject area; an educational objective; frustration, instructional, and independence levels; and a checklist that cross-references competencies to spaces provided for instructors to record information concerning whether students have attained a given educational objective as well as the student's frustration, instructional, and independence levels in attempting to accomplish the task. (MN)

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Sponsor: Pennsylvania Department of Education
Bureau of Vocational Education

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Title: A Vocational/Special Education I.E.P. Planner

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Table of Contents

Introduction

The contents of this booklet provide a mechanism for special educators and vocational instructors to work cooperatively in the development of an Individualized Educational Plan for special needs students. This should result in a more productive response to occupational training by the special needs learner. Conceptually, an I.E.P. involves planning in cooperation with many professionals, in addition to parents and guardians. However, communication between special and vocational educators during this process has frequently been miniscule.

The vocational/special education I.E.P. planner identifies appropriate occupational areas and then proceeds to determine vocational, safety, mathematics, and vocabulary tasks necessary for minimum performance in the occupation. The special educator assesses the currency and present performance level of the special needs learner in mathematics and vocabulary skills. The assessment provides the basis for special education curriculum experience while experiencing vocational training. The vocational educator concurrently evaluates the vocational and safety tasks that the special needs learner will acquire. Using a planning form, the vocational and special educator jointly provide information needed for the I.E.P. This form becomes an addendum with the final I.E.P. for the learner.

The following vocational areas have been completed: horticulture, apparel assembly, food service, and carpentry.

Vocational/Special Education

IEP

Planner

Vocational Area: Horticulture

Special Education
Curriculum Assessment Inventory

Shop: Horticulture

Subject Area: Mathematics

Student Name: _____

Ed Objective: Specific knowledge to be learned in order to perform occupational skills.

Frustration Level: Inability to acquire specific knowledge pertinent to occupation area introduced.

Instructional Level: Ability to perform objective under the guidance of the instructor (training level).

Independent Level: Can transfer knowledge to related situations with independence and proficiency (production level).

✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

	Horticulture Mathematics Skills	Objective	Frustration	Instructional	Independent
Linear Measurements	Read inch ruler to nearest sixteenth				
	Read measuring tape for feet				
	Read feeler gauge to nearest thousandth				
	Read spark plug gauge - .025, .035, etc.				
	Read micrometer to nearest thousandth				
	Read pounds per square inch gauge				
Volume/ Area	Be able to calculate square inches, square feet, square yards, acres				
	Be able to measure teaspoons, tablespoons, cups, pints, quarts, gallons, cubic feet, cubic yards				

		Objective	Frustration	Instructional	Independent
Standards	Determine 4 inch, 6 inch, 8 inch, 10 inch planting pots				
	Determine standard pot, azalea pot, bulb pan				
	Determine nail sizes by penny weight				
	Determine wood screw sizes by gauge				
Computations	Be able to add, subtract, multiply, divide - fractions, percentages				
	Convert fractions by 1/8ths to decimals and vice versa				
	Convert fahrenheit to centigrade				
	Convert pH scale to degree of acidity or alkalinity				

Special Education
Curriculum Assessment Inventory

Shop: Horticulture

Subject Area: Vocabulary

Student Name: _____

Ed Objective: Specific knowledge to be learned in order to perform occupational skills.

Frustration Level: Inability to acquire specific knowledge pertinent to occupation area introduced.

Instructional Level: Ability to perform objective under the guidance of the instructor (training level).

Independent Level: Can transfer knowledge to related situations with independence and proficiency (production level).

✓ indicates that student has achieved this goal

X indicates that student is working on this objective

Horticulture Vocabulary Skills	Objective	Frustration	Instructional	Independent
Soil				
Peat				
Mulch				
Perlite				
Organic				
Inorganic				
Rooting Medium				
Annual				
Biennial				
Perennial				
Dormant				

	Objective	Frustration	Instructional	Independent
Stock Plant				
Transplant				
Seedling				
Bulb				
Corm				
Cutting				
Ground Cover				
Green Manure				
Deciduous Trees				
Evergreen Trees				
Coniferous Trees				
Chlorophyll				
Nutrients				
Photosynthesis				
Transpiration				
Graft				
Crop Rotation				
Pruning				
Harden Off				
Pinching				
Shrub				
Toxic				
Ball & Burlap				
Girdling				
Hardpan				
Leached				
Succulent				
Bare Root				
Complete Fertilizer				
Erosion				
Heading Back				
Loam				

	Objective	Frustration	Instructional	Independent
Ph				
Sodding				
Thatch				
Topiary				
Weed				
Windburn				
Cold Frame				
Drip Line				
Flat				
Humidity				
Irrigation				
Node				
Tuber				
Vermiculite				
Bulb Planter				
Aerator				
Dethatcher				
Duster				
Loppers				
Cutter Mattock				
Rotary Mower				
Reel Mower				
Spade				
Trowel, Planting				
Cultivator, Hand				

Vocational
Curriculum Assessment Inventory

Shop: Horticulture

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

Exposure: Step by step demonstration has been presented by teacher or tutor through a sequential and developmental process.

Training: Performs entire task with direct assistance. Prompting is needed.

Production: The learner has been able to complete this task independently; however, he still lacks the speed and level of accuracy to be considered employable.

Employable: The learner is able to complete the task at a "normal rate" without error and independently for at least five consecutive trials.

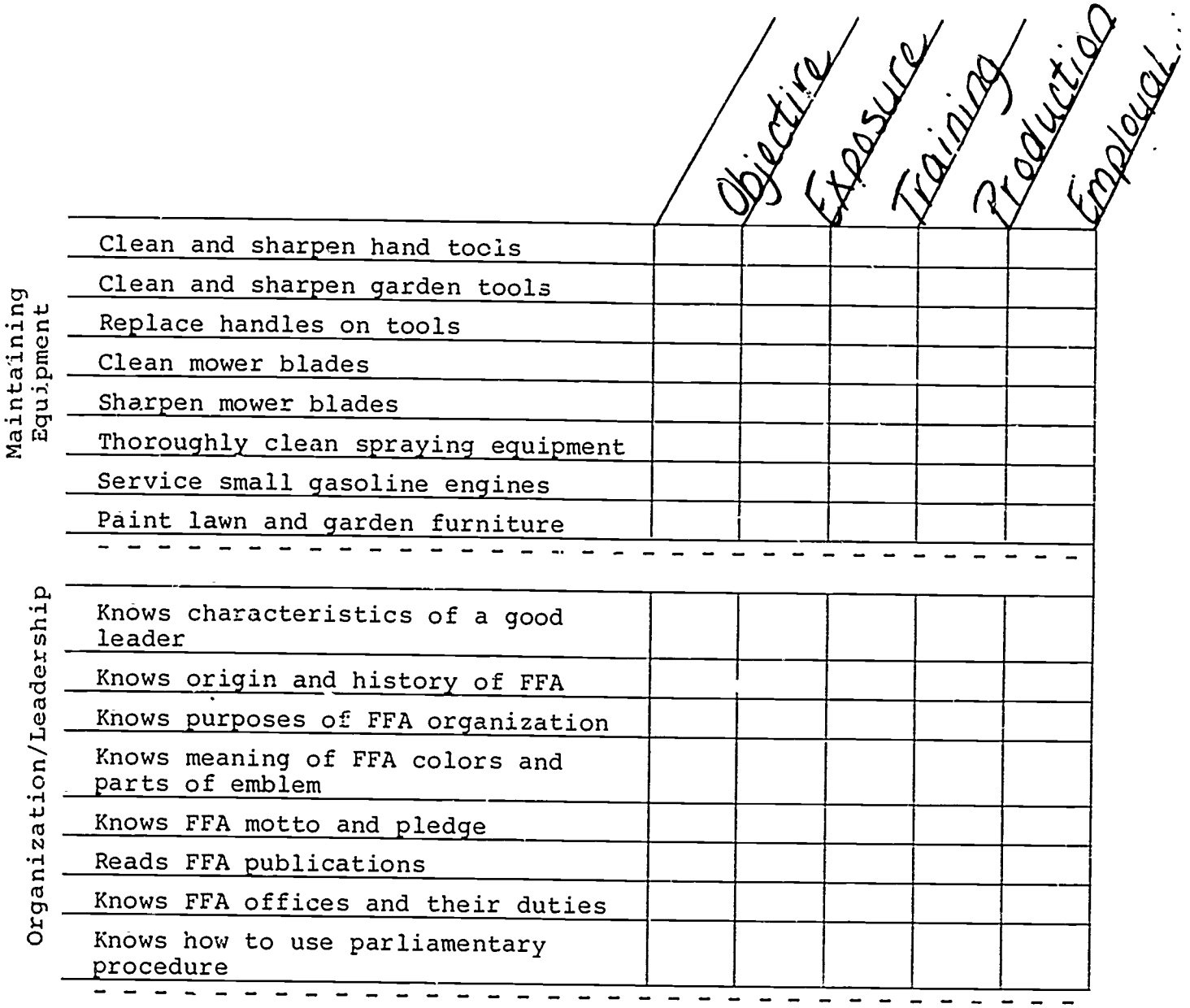
✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

Planting Skills

Horticulture Tasks	Objective	Exposure	Training	Production	Employable
Clean seed					
Plant seed					
Plant bulbs					
Plant shrubs					
Plant bare-root trees					
Plant ball & burlapped trees					
Plant containerized trees					
Plant lawn and turf grasses					
Remove cuttings from stock plants					

		Objective	Exposure	Training	Production	Employable
Planting Skills (cont'd)	Stick cuttings in rooting medium					
	Transplant seedlings to pots or flats					
	Apply rooting hormone powders					
	Label planted specimens					
Maintaining Plants	Sterilize soil					
	Cultivate planting beds					
	Fertilize crops					
	Fertilize potted plants					
	Prune plants					
	Water plants					
	Control placement of plants					
	Apply mulches					
	Remove diseased plants					
	Check plants for insects and diseases					
	Remove faded flowers from plants					
	Apply lime and fertilizer according to soil test					
	Haul and spread topsoil					
Operating Equipment	Operate power mower					
	Operate hand sprayer					
	Operate power sprayer					
	Mow and trim lawn					
	Apply fertilizer with centrifugal spreader					
	Apply fertilizer with hopper spreader					
	Use soil probe or auger					


Objective
Exposure
Training
Production
Employ
Maintaining Equipment
Clean and sharpen hand tools
Clean and sharpen garden tools
Replace handles on tools
Clean mower blades
Sharpen mower blades
Thoroughly clean spraying equipment
Service small gasoline engines
Paint lawn and garden furniture
Organization/Leadership
Knows characteristics of a good leader
Knows origin and history of FFA
Knows purposes of FFA organization
Knows meaning of FFA colors and parts of emblem
Knows FFA motto and pledge
Reads FFA publications
Knows FFA offices and their duties
Knows how to use parliamentary procedure

Vocational
Curriculum Assessment Inventory

Shop: Horticulture

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

Exposure: Step by step demonstration has been presented by teacher or tutor through a sequential and developmental process.

Training: Performs entire task with direct assistance. Prompting is needed.

Production: The learner has been able to complete this task independently; however, he still lacks the speed and level of accuracy to be considered employable.

Employable: The learner is able complete the task at a "normal rate" without error and independently for at least five consecutive trials.

✓ indicates that student has achieved this goal

X indicates that student is working on this objective

General Rules

Horticulture Safety Tasks	Objective	Exposure	Training	Production	Employable
Wear appropriate shop clothing. Loose sleeves, aprons, neckties, and dangling clothing are dangerous					
Do not disturb others while they are operating power equipment					
Keep mind on work					
Keep and use guards on all equipment					
Keep shop clean and free of rubbish and surplus tools					
Stop all power machines before making adjustments					

	Objective	Exposure	Training	Production	Employee
Power Grinder					
Always wear protective goggles when grinding					
Tool rest is kept adjusted and close to the wheel					
Do not hold with pliers any round or spherical objects					
Keep wheel properly trued up by frequent dressing					
Use the face and not the side of the wheel when taking heavy cuts					
Do not grind on wheel while it is coasting to a stop					
Check stone for cracks or flaws					
Do not use a grinding wheel if it is worn to less than half its original diameter. It should be replaced					
Drill Press					
Secure all work with clamp, vise or other means before drilling					
Check to make sure the chuck grips the bit tightly					
Be sure chuck key is removed before starting the drill					
Use a center punch large enough to receive the point of drill					
Use proper lubricant when drilling metal					
Avoid forcing the drill bit					
Keep the long end of the stock to your left when possible					
Support the ends of long stock with a stand					
Adjust the drill press to the proper speed for the material being drilled					
Do not attempt to stop a revolving piece of wood or metal in which the bit is caught					

		Objective	Exposure	Training	Production	Employable
Drill Press (cont'd)	Clean chips off work and table with a brush to avoid slivers in hands					
	Withdraw bit frequently if it goes deeper than flutes, so flutes can be cleaned of shavings					
	Reduce pressure when bit begins to break through bottom of work					
Circular Saw	Do not rip uneven stock unless one edge has been jointed					
	Adjust saw so that teeth will extend 1/8" to 1/4" above work					
	Don't attempt to cut long boards without assistance					
	Keep floor around saw free of blocks and trash					
	Use a push stick when ripping narrow pieces					
	Never use the rip fence as a gauge in crosscutting short pieces					
	Do not place hands over or in front of the blade					
	Use saw guard on all work where possible					
	Be sure saw table is free of material and tools and that all adjustments are tightened before turning on power					
	Stand slightly to one side when operating saw, and be sure others are out of the way					
	Hold material against ripping fence when ripping, and against miter gauge when crosscutting					
	Do not use a dull blade or one with inadequate set. Such a blade is likely to cause a kickback					

		Objective	Exposure	Training	Production	Employability
Jig Saw	Make sure blade is properly chucked and is clear before turning on					
	Set blade to cut on down stroke					
	Set upper blade guide just above material being cut					
	Use speed and blade type corresponding to material being sawed					
	Feed material into blade slowly. Be especially careful when sawing small circles					
	Plan cuts to avoid "backouts" whenever possible					
	Never use a cracked or kinked saw blade					
	Test blade for tension before starting saw					
Electric Welding	Use welding helmet when welding and clear goggles when chipping					
	Wear heavy leather gloves and apron					
	Wear trousers without cuffs, but long enough to prevent metal from falling into operator's shoes					
	Make sure electrode holder and all electrical connections are properly insulated					
	Do not use welder in damp location					
	Never strike an arc until you are sure everyone nearby is protected from the arc rays					
	Prevent cables from coming in contact with hot metal or sharp objects					
	If electrode becomes stuck to work, shut off power and remove with pliers					

Oxy-Acetylene Welder

	Objective	Exposure	Training	Production	Employable
Fasten cylinders so they cannot tip over					
Check for leaks around connections with soapy water, never an open flame					
Do not turn acetylene or propane on until ready to light torch					
Use goggles, gloves and other protective clothing					
Keep all oil and grease away from welding equipment					
Stand to one side when opening cylinders					
NEVER use more than 15# pressure on acetylene line					
Keep face a reasonable distance away from work					
Never allow end of tip to get into molten puddle					
Close acetylene valve first when shutting down torch					
Never weld or cut metal where sparks will drop onto concrete					
ALWAYS use regular friction lighter to light torch					
Keep hot metal and flame away from hose					
Keep tip pointed away from everyone to prevent saturating clothes with gas before lighting torch					
Keep acetylene or propane cylinder in an upright position when welding to prevent liquid in tank from being forced out the hose					

		Objective	Exposure	Training	Production	Employab.
Oxy-Acetylene Welder (cont'd)	When welding or cutting galvanized iron, avoid breathing fumes. Use forced ventilation or do the job out of doors					
	Close tank valves tightly when welding is completed and bleed out hoses					
Jointer	Use guard over cutterhead on all jobs that will permit its use. The fence should be set as near the operator as its width of stock will permit					
	Use a push stick when surfacing thin stock					
	Do not attempt to surface stock that is less than 10" in length					
	Stand to the left of the jointer, never directly in back of it					
	Do not attempt to take too heavy a cut					
	See that the "clamping screws" on the fence are screwed down securely, so that the fence cannot slip while in use					
	Do not let your fingers extend over either end of a board being planed					
	Do not attempt to plane stock material that cannot be held securely against the fence					
	Change position of the hands so they will never be directly over the jointer when passing work over the jointer					
	Do not joint end grain, feed stock with the grain					

	Objective	Exposure	Training	Production	Employable
Jointer (cont'd)					
See that the material run over the jointer is sound and free of knots and splits					
Band Saw					
Use only blades that are sharp and in good condition					
Be sure the blade guides are adjusted to almost touch the blade at the back edge and at the sides when it is running free and not cutting					
Stand slightly to one side of the line of sawing, and feed the work only as fast as the saw will take it					
Always keep hands away from blade while it is in operation					
Plan work, if possible, so that it will not be necessary to back the saw out of the cut					
Keep upper guide set down close to the work, particularly when sawing thick material					
In sawing irregular work, saw as near the line as possible the first time through. If necessary, make a second cut to finish certain parts					
Tilt table to cut bevels					
In cutting several pieces to the same length, the ripping fence may be used as a gauge					
If blade tends to lead off to one side, it may be dull or unevenly set, or the guides may be improperly set					

		Objective	Exposure	Training	Production	Employer
Wood Lathe	Do not wear loose, floppy clothing					
	Always check to be sure stock is securely mounted, then spin setup by hand before starting lathe					
	Do not make adjustments or any measurements when lathe is running					
	Be sure stock has no loose knots, insecurely glued joints or chucked ends					
	Adjust tool rest so it is slightly above center of stock and close to stock					
	Operate lathe at slow speed until stock is cylindrical; regulate speed according to size and length of stock					
	Clamp tailstock firmly in place, and lock tailstock spindle before starting lathe					
	Keep tools sharp; place tools in rack when finished to keep sharp					
Sander (Belt and Disc)	Be careful to keep fingers away from sanding surface					
	Do not apply too much pressure to object you are sanding					
	Do not keep object you are sanding at the same position on the belt or disc for too long a time					
	Sand with rotation of wheel or belt					
Portable Electric Tools	Because of danger of shock, portable tools should always be grounded while in use					
	Always remove plug from outlet before changing blades, belts, etc., or before lubricating or inspecting					

		Objective	Exposure	Training	Production	Employable
Portable Electric Tools (cont'd)	Never carry or drag tools around by the cord					
	Keep cord free from grease and oil					
	Small pieces of wood or metal which are to be worked on should be placed in a vise or fastened securely to the bench					
	Be sure switch is off before inserting plug in outlet					
	Make sure all nails or other pieces of metal are removed before starting to work on wood with portable tools					
	Make sure electric cord is out of the way before starting tool					
Soldering	Do not overheat soldering copper					
	Never lay a hot soldering copper on a regular bench top					
	When using an open flame, make sure it is pointed in the proper direction					
Painting	Keep paints tightly covered when not in use					
	Keep brushes clean and store them properly					
	Protect nearby objects and persons when painting					
	Make sure all cans of turpentine, gasoline, kerosene, etc., are covered (capped) when not being used					

Miscellaneous	Objective	Exposure	Training	Production	Employabi
Do not use a dull tool; sharpen it					
Use proper tool for the job; especially hand tools					
Always shut off power tools before leaving them					
Do not use mushroomed tools or tools with loose handles					
Do not use tools that are not properly fitted					

Vocational/Special Education
Curriculum Planning Form

Student's Name _____

Recommended Occupational Area _____

Agreement of Shop Instructor _____ Yes _____ No

Agreement of Special Education Instructor _____ Yes _____ No

Immediate Vocational and Safety Tasks to be Accomplished:
Vocational Instructor

Immediate Mathematics and Vocabulary Tasks to be Accomplished:
Special Education Instructor

Needed Materials (Vocational/Special Education Instructors):

Special Facilities (Vocational/Special Education Instructors):

Needed Aids (Vocational/Special Education Instructors):

Time Needed to Complete Tasks (Vocational/Special Education Instructors):

Needed Ability Level of Students (Vocational/Special Education Instructors):

Vocational Instructor _____
Signature

Special Education Instructor _____
Signature

I.E.P.

Student's Name _____ Grade/Program _____

Birth Date _____ Teacher(s) _____

Present Date _____ School _____

Primary Assignment(s)	Date Started	Expected Duration of Services	Special Media or Materials

Reason for Assignment(s): _____

Services

Dates for review and/or revision of the Individualized Education Program Plan:

_____

Personal responsible for the maintenance and implementation of the Individualized Education Program Plan:

_____

Vocational/Special Education

IEP

Planner

Vocational Area: Apparel Assembly

Special Education
Curriculum Assessment Inventory

Shop: Apparel Assembly

Subject Area: Mathematics

Student Name: _____

Ed Objective: Specific knowledge to be learned in order to perform occupational skills.

Frustration Level: Inability to acquire specific knowledge pertinent to occupation area introduced.

Instructional Level: Ability to perform objective under the guidance of the instructor (training level).

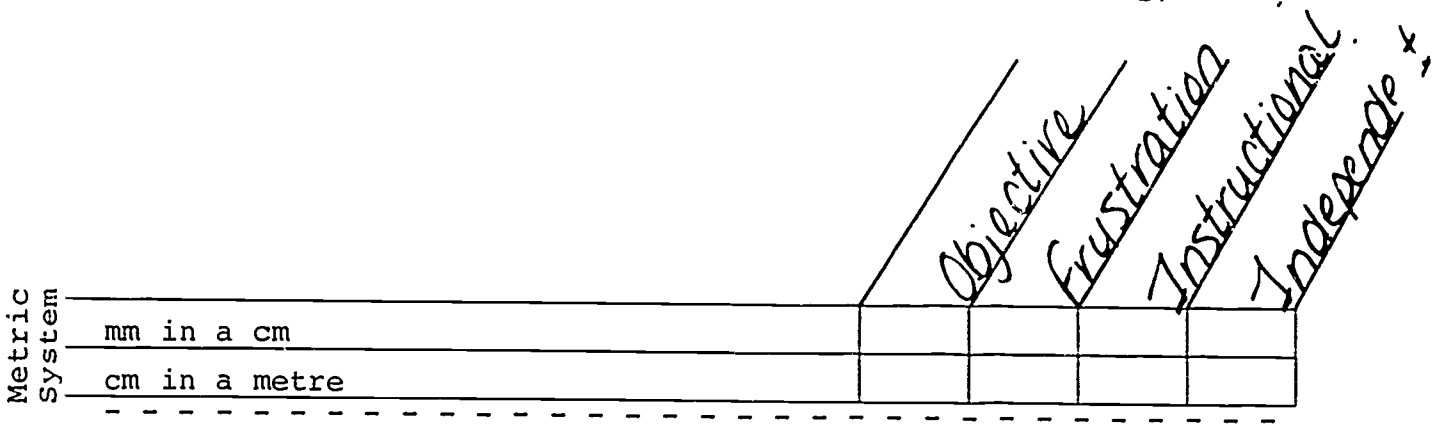
Independent Level: Can transfer knowledge to related situations with independence and proficiency (production level).

✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

Apparel Assembly Mathematics

	Objective	Frustration	Instructional	Independent
Measuring Devices to the 1/8"				
6" rule or seam gauge rule				
12" rule				
Yard stick				
72" rule				
60" flexible tape measure				
Set seam gauges using 6" rule to 1/8"				
Yardage				
Inches to the yard				
Feet to the yard				
Inches in 1/4 yard				
Inches in 1/2 yard				
Inches in 3/4 yard				


Objective
Frustration
Instructional
Independe
Metric System
mm in a cm
cm in a metre

Special Education
Curriculum Assessment Inventory

Shop: Apparel Assembly

Subject Area: Vocabulary

Student Name: _____

Ed Objective: Specific Knowledge to be learned in order to perform occupational skills.

Frustration Level: Inability to acquire specific knowledge pertinent to occupation area introduced.

Instructional Level: Ability to perform objective under the guidance of the instructor (training level).

Independent Level: Can transfer knowledge to related situations with independence and proficiency (production level).

✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

Apparel Assembly Vocabulary	Objective	Frustration	Instructional	Independent
Alteration				
Apparel				
Attire				
Basting				
Binding				
Bobbin				
Bodice				
Buttonhole				
Cotton				
Darts				
Dry Goods				

	Objective	Frustration	Instructional	Independent
Fabric				
Facing				
Fasteners				
Fibers				
Foot (Machine)				
Garment				
Grain				
Hems				
Industrial Sewing				
Interfacing				
Iron-On				
Knitted Fabrics				
Lining				
Lockstitch				
Man-Made Fiber				
Nap				
Non-Woven				
Notch				
Notions				
Operation				
Pattern				
Pile				
Pinking Shears				
Plackets				
Sample				
Selvage				
Shears				
Shirring				
Slide Fasteners				
Tape Measure				
Textile				

	Objective	Frustration	Instructional	Independent
Underthreading				
Upper Threading				
Warp				
Weave				
Wool				
Zipper				

Vocational
Curriculum Assessment Inventory

Shop: Apparel Assembly

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

Exposure: Step by step demonstration has been presented by teacher or tutor through a sequential and developmental process.

Training: Performs entire task with direct assistance. Prompting is needed.

Production: The learner has been able to complete this task independently; however, he still lacks the speed and level of accuracy to be considered employable.

Employable: The learner is able to complete the task at a "normal rate" without error and independently for at least five consecutive trials.

✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

Apparel Assembly Tasks	Objective	Exposure	Training	Production	Employable
Identify basic machine parts (manufacturer's manual)					
Operate machine for control (unthreaded)					
Thread upper machine					
Thread bobbin or underthreading					
Operate threaded machine to develop control					
Start machine					
Stop machine					

	Objective	Exposure	Training	Production	Employable
Pivot and turn					
Stitch wavy lines					
Stitch circles					
Stitch various seams (listed in text or manual)					
Stitch darts					
Back tack or reverse stitching					
Change needle in machine					
Test machine					
Check for quality stitch					
Identify S.P.I. (stitches per inch)					
Change feet					
Operate machine with gauges					
Operate machine with attachments					
Identify with measuring devices fractions to 1/8"					
Sew basic hand stitches (listed in text or manual)					
Identify notches on garment					
Mark and chalk pattern pieces					
Assist in cutting					
Assist in garment construction					
Assist in hand finishing					
Assist in under pressing					
Incorporate pressing safety procedures					
Assist in trimming and cleaning garment					
Select threads to match jobs					
Organize stock and material in shop					
Fill bobbins to match jobs					
Maintain cleanliness in work area					

Vocational
Curriculum Assessment Inventory

Shop: Apparel Assembly

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

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Employable: The learner is able to complete the task at a "normal rate" without error and independently for at least five consecutive trials.

✓ indicates that student has achieved this goal

X indicates that student is working on this objective

Apparel Assembly Safety	Objective	Exposure	Training	Production	Employable
Do not put pins or needles in your mouth					
Do not put open scissors or other sharp objects on machine					
Always concentrate on your own work; don't let your mind wander while operating machine					
Report any accident and treat any injury immediately, no matter how minor					

	Objective	Exposure	Training	Production	Employable
Keep equipment in proper working condition. Immediately report any broken equipment. Do not attempt to make any adjustments or repairs about which you are not absolutely sure					
Replace burned out light bulbs promptly					
Turn off motor when machine is not in use					
Learn the location of switches, plug-ins, and fuses					
In case of an emergency, learn how to turn off main switch					
Hold the plug, not the cord, when disconnecting electric cords					
Use extreme care. Carelessness causes accidents. Be sure before you proceed; if in doubt, don't. Caution is still the best safety device known					
Practice good posture					
Keep hands on lap					
Do not start or stop machine by turning the balance wheel with hands					
Lower presser foot and needle and turn off motor when machine is not in use					
Keep hands away from needle					
Do not pull material through machine					
Control speed of the machine; stitch slowly					
Do not use the hand as a brake to stop the machine					
If it is necessary to turn balance wheel by hand, do so only after machine has stopped completely					

	Objective	Exposure	Training	Production	Employable
Never keep presser foot down when operating machine without fabric					
Be sure to raise presser foot if filling bobbin when not stitching					
Remove all thread ends from bobbin before refilling					
Use both hands to raise head of machine					
Keep both feet off treadle					
Do not place bobbin case in machine when needle is down					
Close bed plate before operating machine					
Keep feet off treadle when replacing needle					
Make only those adjustments you have been trained to do					
Report trouble to the proper person					
Turn off motor when cleaning machine					
Never oil machine manually while it is in operation					
Use both hands to raise and lower head of machine					
Be careful not to spill oil on floor					
If some does spill, clean it immediately					
Do not oil or grease motor					

Vocational/Special Education
Curriculum Planning Form

Student's Name _____

Recommended Occupational Area _____

Agreement of Shop Instructor _____ Yes _____ No

Agreement of Special Education Instructor _____ Yes _____ No

Immediate Vocational and Safety Tasks to be Accomplished:
Vocational Instructor

Immediate Mathematics and Vocabulary Tasks to be Accomplished:
Special Education Instructor

Needed Materials (Vocational/Special Education Instructors):

Special Facilities (Vocational/Special Education Instructors):

Needed Aids (Vocational/Special Education Instructors):

Time Needed to Complete Tasks (Vocational/Special Education Instructors):

Needed Ability Level of Students (Vocational/Special Education Instructors):

Vocational Instructor _____
Signature

Special Education Instructor _____
Signature

I.E.P.

Student's Name _____ Grade/Program _____

Birth Date _____ Teacher(s) _____

Present Date _____ School _____

Primary Assignment(s)	Date Started	Expected Duration of Services	Special Media or Materials

Reason for Assignment(s): _____

Services

Dates for review and/or revision of the Individualized Education Program Plan:

_____

Personal responsible for the maintenance and implementation of the Individualized Education Program Plan:

_____

Vocational/Special Education

IEP

Planner

Vocational Area: Carpentry

Special Education
Curriculum Assessment Inventory

Shop: Carpentry

Subject Area: Mathematics

Student Name: _____

Ed Objective: Specific knowledge to be learned in order to perform occupational skills.

Frustration Level: Inability to acquire specific knowledge pertinent to occupation area introduced.

Instructional Level: Ability to perform objective under the guidance of the instructor (training level).

Independent Level: Can transfer knowledge to related situations with independence and proficiency (production level).

√ indicates that student has achieved this goal

X indicates that student is working on this objective

	Carpentry Mathematics Skills	Objective	Frustration	Instructional	Independent
Calculation	Match symbols used in math problems to their names				
	Solve math problems involving addition				
	Solve math problems involving subtraction				
	Solve math problems involving division				
	Solve math problems involving multiplication				
	Identify numerator and denominator in a given fraction				
	Distinguish between proper, improper and mixed fractions				

		Objective	Frustration	Instructional	Independent
Calculation (cont'd)	Convert mixed numbers to improper fractions				
	Convert improper fractions to mixed numbers or whole numbers				
	Reduce fractions to lowest terms				
	Write the place value of each digit in a numeral with three decimal places				
	Write numbers in decimal notation				
	Write number words as decimal numerals				
	Write decimals to the nearest whole number, tenth and hundredth				
	Solve problems involving addition of decimals, subtraction of decimals, multiplication of decimals, and division of decimals				
	Write fractions as decimals and percents				
	Write percents as fractions and decimals				
Basic Measuring Tools	Identify basic measuring tools				
	Read a rule to the nearest one-sixteenth of an inch				
	Measure objects				
	Draw objects to specified dimensions				
	Calculate basic math problems dealing with area				
	Calculate basic math problems dealing with volume				
	Write the formula for figuring board feet				

Basic Measuring Tools (cont'd)

	Objective	Frustration	Instructional	Independent
Write the formula for estimating concrete				
Compute board feet and cost				
Estimate number of lineal feet of molding required for a job				
Lay out 90° and 45° angle using a framing square				
Lay out various angles using a protractor and sliding T bevel				
Lay out equal spaces using a rule				
Lay out equal spaces using dividers				
Measure angles using a protractor				
Describe how to check a 90° angle using the 6-8-10 triangle theory				

Special Education
Curriculum Assessment Inventory

Shop: Carpentry

Subject Area: Vocabulary

Student Name: _____

Ed Objective: Specific knowledge to be learned in order to perform occupational skills.

Frustration Level: Inability to acquire specific knowledge pertinent to occupation area introduced.

Instructional Level: Ability to perform objective under the guidance of the instructor (training level).

Independent Level: Can transfer knowledge to related situations with independence and proficiency (production level).

✓ indicates that student has achieved this goal

X indicates that student is working on this objective

Carpentry Vocabulary Skills	Objective	Frustration	Instructional	Independent
Air-drying				
Annular Ring				
Asphalt				
Backblocking				
Backerboard				
Backsplash				
Balloon Framing				
Balustrade				
Band				
Base Cap				
Batten				

	Objective	Frustration	Instructional	Independent
Bearing Block				
Bearing Partition				
Bifold Door				
Blade				
Blind-nailing				
Blind Stop				
Board and Batten				
Body				
Bow Warp				
Braced Framing				
BTU				
Built-up Roof				
Bypass Door				
Caneboard				
Cantilever				
Cant Strip				
Cement (1)				
Cement (2)				
Clerestory				
Collar Beam				
Conduction				
Convection				
Corner Bead (1)				
Corner Bead (2)				
Cornice				
Cricket				
Crook Warp				
Crossband				
Cross-nailing				
Cross Partition				
Crown				

	Objective	Frustration	Instructional	Independent
Cup Warp				
Dead Load				
Dimpling				
Dormer				
Double-cheek Cut				
Double-coursing				
Double-glazing				
Doubler				
Drop				
Dub Off				
Eaves Trough				
Edge-grained				
Edge Joist				
Elevation				
Escutcheon				
Expansion Joint				
Exposure				
Field				
Fillet				
Finger-jointing				
Fire Cut				
Fire-rated				
Firestop				
Flange				
Flashing				
Fly Rafter				
Frieze				
Frost Line				
F.R.R.				
Furring				
Gain				

	Objective	Frustration	Instructional	Independent
Galvanic Action				
Glue-laminating				
Grade (1)				
Grade (2)				
Grain				
Gusset				
Header Joist				
Hip				
I.I.C.				
Intermediate Stud				
Isolation Joint				
Joint Treatment				
Keyway				
Kiln-drying				
Knee Wall				
Ladder (1)				
Ladder (2)				
Leader				
Leaf				
Level				
Live Load				
Lockset				
Lookout				
Loose Fill				
Lug				
Module				
Moisture Content				
Mud Sill				
Mullion				
Muntin				
O.C.				

	Objective	Frustration	Instructional	Independent
Offal				
Open Time				
Ordinance				
Panel (1)				
Panel (2)				
Parallel Partition				
Parquet				
Parting Strip or Stop				
Party Wall				
Pedestal				
P.E.T.				
Pitch				
Plain-sawed				
Plane				
Plastic Laminate				
Plate				
Plate Cut				
Plot Plan				
Plumb Cut				
Pocket Door				
Polyethylene				
Post				
Post and Beam				
Purlin (1)				
Purlin (2)				
Pythagorean Theorem				
Quarter-sawed				
R Factor				
Radiation				
Rafter Seat				
Rail (1)				

	Objective	Frustration	Instructional	Independent
Rail (2)				
Rake				
Rebar Short for reinforcing bar				
Regular Rafter				
Return				
Reveal				
Ribband				
Ridgeboard				
Rise (1)				
Rise (2)				
Riser				
Rose				
Rout				
Run (1)				
Run (2)				
Saddle				
Scale (1)				
Scale (2)				
Scarf				
Schedule				
Schematic				
Screed				
Section				
Selvage				
Setback				
Shake				
Shiplap				
Shortening Line				
Shutters				
Sidelight				
Sill				

	Objective	Frustration	Instructional	Independent
Single-cheek Cut				
Single-coursing				
Sleepers				
Slope (1)				
Slope (2)				
Solid Bridging				
Spaced Beam				
Spacer				
Splashboard				
Splice				
Splice Plate				
Split				
Spreader				
Stack Wall				
Standards				
Station Mark				
S.T.C.				
Stickers				
Stile				
Strike Plate				
Stringer				
Subflooring				
Subrail				
Swaged				
Tab				
Tail				
Tail Joist				
Thickened Edge				
Toe Kick				
Trestle				
Trimmer				

	Objective	Frustration	Instructional	Independent
Truss				
Turned-down Slab				
Twist Warp				
Vapor Barrier				
Vertical-grained				
Walers				
Walking Steps				
Wane				
Warp				
Water Table (1)				
Water Table (2)				
Web				
Winder				
Zoning				

Vocational
Curriculum Assessment Inventory

Shop: Carpentry

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

Exposure: Step by step demonstration has been presented by teacher or tutor through a sequential and developmental process.

Training: Performs entire task with direct assistance. Prompting is needed.

Production: The learner has been able to complete this task independently; however, he still lacks the speed and level of accuracy to be considered employable.

Employable: The learner is able to complete the task at a "normal rate" without error and independently for at least five consecutive trials.

✓ indicates that student has achieved this goal

X indicates that student is working on this objective

Framing & Sheathing

Carpentry Tasks	Objective	Exposure	Training	Production	Employable
Build a sawhorse					
Install backing for hanging fixtures and cabinets					
Install bridging between joists					
Install diagonal bracing					
Install fire stops					
Lay subfloors					
Install wall sheathing					
Install roof sheathing					
Install shingles					

		Objective	Exposure	Training	Reduction	Employable
Exterior Finish	Install asbestos siding					
	Install aluminum siding					
	Install windows					
	Install door frames					
	Install prefabricated storm door & windows					
	Install exterior trim					
Interior Finish	Install rock lath					
	Install metal lath					
	Install plaster grounds					
	Cut & install dry wall					
	Finish joints & nailheads on dry wall					
	Install furring strips					
	Assist in installing paneling					
	Install strip flooring					
	Install block flooring					
	Install ceiling tile					
	Joint stock with jointer					
	Cut irregular shaped pattern					
	Rip plywood with portable saws					
	Install insulation					
Interior Trim	Install base mold					
	Install closet trim & shelving					
	Install door & window trim					
	Install window & door hardware					
	Assist with installing cabinets					

Interior Trim (cont'd)

	Objective	Exposure	Training	Production	Employable
Drill holes using portable electric drill					
Sand edges & surfaces with belt & finishing sanders					
Mold straight & curved edges using a router					
Grouting tile					
Install resilent tile					

Vocational
Curriculum Assessment Inventory

Shop: Carpentry

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

Exposure: Step by step demonstration has been presented by teacher or tutor through a sequential and developmental process.

Training: Performs entire task with direct assistance. Prompting is needed.

Production: The learner has been able to complete this task independently; however, he still lacks the speed and level of accuracy to be considered employable.

Employable: The learner is able to complete the task at a "normal rate" without error and independently for at least five consecutive trials.

✓ indicates that student has achieved this goal

X indicates that student is working on this objective

	Carpentry Safety Tasks	Objective	Exposure	Training	Production	Employable
Personal Safety Rules	Wear shop clothing appropriate to instructional activity being performed					
	Confine long hair before operating rotating equipment					
	Always wear safety glasses; use suitable helmets & goggles for welding					
	Remove ties when working around machine tools or rotating equipment					

		Objective	Exposure	Training	Production	Employment
Personal Safety Rules (cont'd)	Remove rings & other jewelry when working in shop					
	Conduct yourself in a manner conducive to safe shop practices					
	Use soap & water frequently as a method of preventing skin diseases					
Shop Safety Rules	Keep all hand tools sharp, clean and in safe working order					
	Report any defective tools, machines or other equipment to instructor					
	Retain all guards & safety devices except with the specific authorization of instructor					
	Operate a hazardous machine only after receiving instruction on how to operate machine safely					
	Report all accidents to instructor regardless of nature or severity					
	Operator turns off power & makes certain machine has stopped running before leaving					
	Make sure all guards & barriers are in place & adjusted properly before starting a machine tool					
	Disconnect power from machine tools before performing maintenance task of oiling or cleaning					
	Use a solvent only after determining its properties, what kind of work it has to do and how to use it					
	Use correct, properly fitting wrenches for nuts, bolts and objects to be turned or held					

	Objective	Exposure	Training	Production	Employable
Shop Safety Rules (cont'd)					
Keep shop or laboratory floor clear of scraps & litter					
Clean up any spilled liquids immediately					
Oily rags or oily waste should be stored in metal containers					
Clean chips from a machine with a brush-not with a rag or bare hands					
Do not use compressed air to clean your person or clothing					
Use only approved scaffolding					
Methods for Orderly Shop					
Arrange machinery & equipment to permit safe, efficient work practices & ease in cleaning					
Stack materials & supplies safely or store in proper place					
Store tools & accessories safely in cabinets, on racks or in other suitable devices					
Clear working areas & work benches of debris & other hazards					
Clean & free floors from obstructions & slippery substances					
Free aisles, traffic areas & exits of materials & other debris					
Dispose of combustible materials properly or store in approved containers					
Store oily rags in self-closing or spring-lid metal containers					
Know proper procedures to follow in keeping work area clean & orderly					
Keep sufficient brooms, brushes & other housekeeping equipment readily available					

Vocational/Special Education
Curriculum Planning Form

Student's Name _____

Recommended Occupational Area _____

Agreement of Shop Instructor _____ Yes _____ No

Agreement of Special Education Instructor _____ Yes _____ No

Immediate Vocational and Safety Tasks to be Accomplished:
Vocational Instructor

Immediate Mathematics and Vocabulary Tasks to be Accomplished:
Special Education Instructor

Needed Materials (Vocational/Special Education Instructors):

Special Facilities (Vocational/Special Education Instructors):

Needed Aids (Vocational/Special Education Instructors):

Time Needed to Complete Tasks (Vocational/Special Education Instructors):

Needed Ability Level of Students (Vocational/Special Education Instructors):

Vocational Instructor _____
Signature

Special Education Instructor _____
Signature

I.E.P.

Student's Name _____ Grade/Program _____

Birth Date _____ Teacher(s) _____

Present Date _____ School _____

Primary Assignment(s)	Date Started	Expected Duration of Services	Special Media or Materials

Reason for Assignment(s): _____

Services

Dates for review and/or revision of the Individualized Education Program Plan:

_____

Personal responsible for the maintenance and implementation of the Individualized Education Program Plan:

_____

Vocational/Special Education

IEP

Planner

Vocational Area: Food Service

Special Education
Curriculum Assessment Inventory

Shop: Food Service

Subject Area: Mathematics

Student Name: _____

Ed Objective: Specific knowledge to be learned in order to perform occupational skills.

Frustration Level: Inability to acquire specific knowledge pertinent to occupation area introduced.

Instructional Level: Ability to perform objective under the guidance of the instructor (training level).

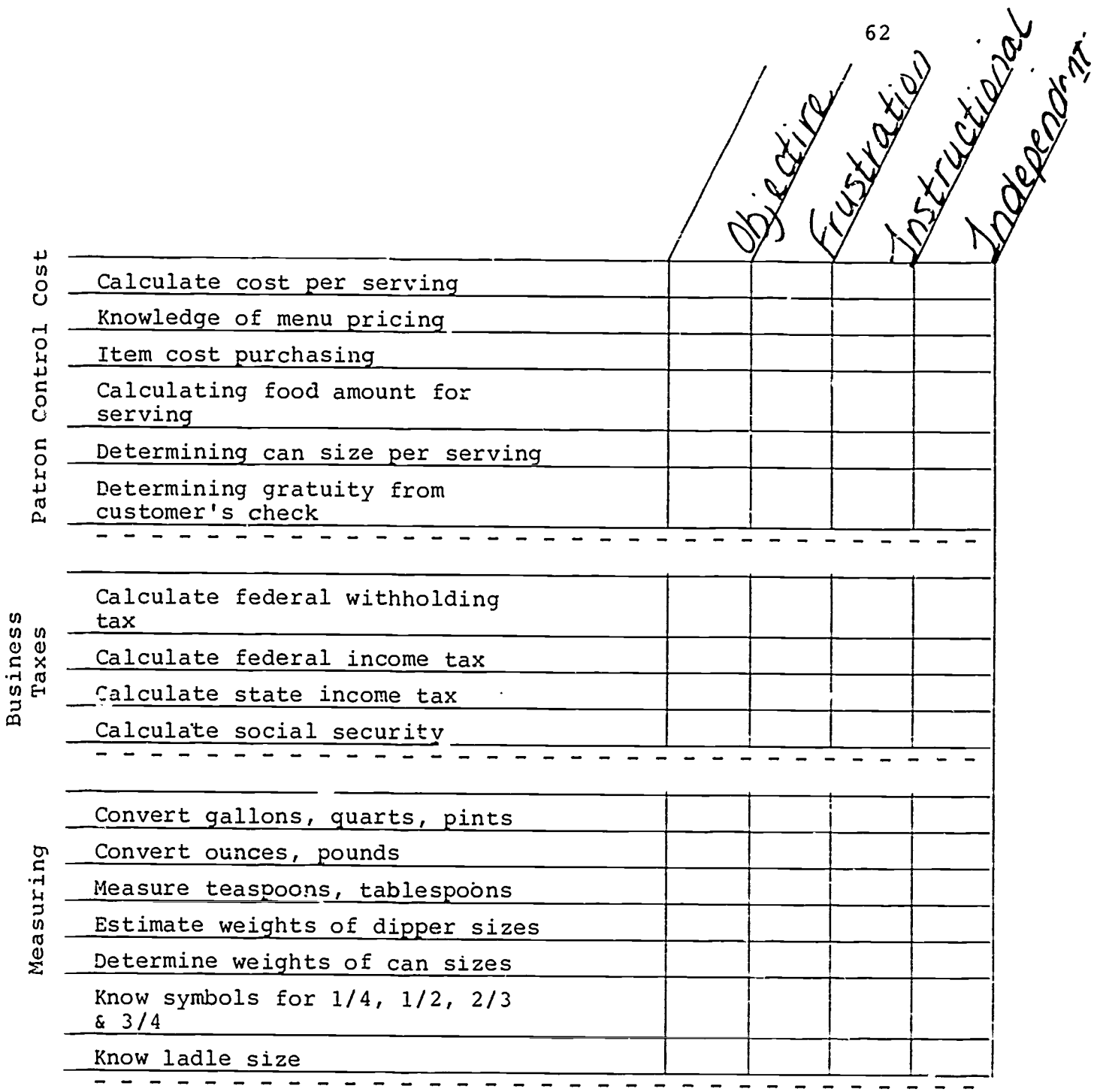
Independent Level: Can transfer knowledge to related situations with independence and proficiency (production level).

✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

Basic Skills

Food Service Mathematics	Objective	Frustration	Instructional	Independent
Solve math problems involving addition				
Solve math problems involving subtraction				
Solve math problems involving multiplication				
Solve math problems involving division				
Write recipes and/or food formulas				
Tabulate bills				
Tabulate sales tax				
Know money values				
Make change for customers				


Objective
Frustration
Instructional
Independent
Patron Control Cost
Calculate cost per serving
Knowledge of menu pricing
Item cost purchasing
Calculating food amount for serving
Determining can size per serving
Determining gratuity from customer's check
Business Taxes
Calculate federal withholding tax
Calculate federal income tax
Calculate state income tax
Calculate social security
Measuring
Convert gallons, quarts, pints
Convert ounces, pounds
Measure teaspoons, tablespoons
Estimate weights of dipper sizes
Determine weights of can sizes
Know symbols for 1/4, 1/2, 2/3 & 3/4
Know ladle size

Special Education
Curriculum Assessment Inventory

Shop: Food Service

Subject Area: Vocabulary

Student Name: _____

Ed Objective: Specific knowledge to be learned in order to perform occupational skills.

Frustration Level: Inability to acquire specific knowledge pertinent to occupation area introduced.

Instructional Level: Ability to perform objectives under the guidance of the instructor (training level).

Independent Level: Can transfer knowledge to related situations with independence and proficiency (production level).

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✗ indicates that student is working on this objective

Food Service Vocabulary	Objective	Frustration	Instructional	Independent
Aging				
A La Carte				
A La Mode				
Al Dente				
Ambrosia				
Antipasto				
Aspic				
Au or Aux				
Au Gratin				
Au Jus				
Baked Alaska				
Baste				

	Objective	Frustration	Instructional	Independent
Bechamel				
Breading				
Buffet				
Canape				
Carte Du Jour				
Cavair				
Chef				
Chives				
Chop				
Coat				
Cobbler				
Consomme				
Crepe				
Cube				
Cuisine				
Cut In				
Deglaze				
Demiglace				
Heifer				
Jus				
Knead				
Leek				
Legumes				
Lyonnaise				
Mayonnaise				
Menu				
Meringue				
Mignon				
Minced				
Mirepoix				
O'Brien				

	Objective	Frustration	Instructional	Independent
Poach				
Puree				
Reduce				
Roe				
Roux				
Saffron				
Saute				
Scald				
Score				
Sear				
Sift				
Simmer				
Sole				
Stock				
Truffle				
Veloute				
Vichyssoise				
White Wash				
Whip				

Vocational
Curriculum Assessment Inventory

Shop: Food Service

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

Exposure: Step by step demonstration has been presented by teacher or tutor through a sequential and developmental process.

Training: Performs entire task with direct assistance. Prompting is needed.

Production: The learner has been able to complete this task independently; however, he still lacks the speed and level of accuracy to be considered employable.

Employable: The learner is able to complete the task at a "normal rate" without error and independently for at least five consecutive trials.

✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

Waitress/Waiter

Food Service Tasks	Objective	Exposure	Training	Production	Employable
Takes orders correctly					
Adjusts temperature					
Checks shortening & cleans fryer					
Selects food, egg wash or other types of frying mixes					
Orders supplies					
Cleans up greasy spots promptly					
House cleaning					
Breading					

		Objective	Exposure	Training	Production	Employable
Waitress/ Waiter (cont'd)	Seasoning					
	Reads recipes					
	Check cooking time					
Sandwich Preparation	Reading recipes					
	Prepare fillings					
	The use of lettuce					
	The use of a knife in cutting					
	Bread and useage for canapes and hors d'oeuvres					
	Refrigeration & storage					
	Spoon or scoop for portion control					
	Types of sandwich					
	Specifies and orders supplies					
	General house cleaning					
Cook's Helper	Checks & reads recipes					
	Mincing, chopping, slicing, dicing					
	Tests temperatures					
	Selects meat					
	Cleans areas of work (house-cleaning)					
	Use and care of equipment					
	General cooking rules & methods					
	Selects meats, vegetables & other types of food					
	Operate equipment					
	Cutting and carving					
	Personal ethics					

	Objective	Exposure	Training	Production	Employable
Baker's Helper					
Reading dough formulas					
The ingredients in dough and their reaction during mixing, proofing and baking					
Scale all ingredients correctly, proofing and baking					
Mix to develop dough					
Knead the dough					
Proof the dough					
Makeup into desired shapes & sizes					
Make at required temperatures					
Do not over proof the dough					
Maintains & cleans work area					
Generic Tasks					
Reads recipes					
Ready equipment to be used					
Uses small hand tools					
Mincing, chopping, dicing & slicing					
Cooking vegetables					
Cleaning vegetables					
Sanitation & safety					
Flouring & blending					
Checks time allowed					
Care of equipment & general house cleaning					

Vocational
Curriculum Assessment Inventory

Shop: Food Service

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

Exposure: Step by step demonstration has been presented by teacher or tutor through a sequential and developmental process.

Training: Performs entire task with direct assistance. Prompting is needed.

Production: The learner has been able to complete this task independently; however, he still lacks the speed and level of accuracy to be considered employable.

Employable: The learner is able to complete the task at a "normal rate" without error and independently for at least five consecutive trials.

✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

Preparation

Food Service Safety (Edited from National Safety Council on Food Preparation)	Objective	Exposure	Training	Production	Employable
Use dry towels when handling hot skillets					
Avoid splashing grease on top of range					
Remove lids of pots slowly					
Always give notice of "HOT FOOD" when moving a hot container from one place to the other					
Keep towels used for handling hot foods off the range					

		Objective	Exposure	Training	Production	Employable
Preparation (cont'd)	Avoid over-filling hot food containers					
	Never let long handles of sauce pans or skillets extend into aisles					
	Never turn the handle of any pot toward the fire					
	Get help in lifting or moving any heavy pots or containers					
	Place a lighted match to gas jets before turning on the gas					
	Know the location of fire extinguishers					
	When placing food in hot grease, always let the item slide away from you					
	Keep work station clean at all times					
	At all times have your attention focused on the job at hand					
	Never have glass near any food					
	Never throw any objects in the kitchen					
	Treat injuries immediately					
Hand Equipment	Use the right knife for the job					
	Do not grab for falling knives					
	Always carry a knife with the tip pointing downward & with the cutting edge turned away from body					
	Never talk with a knife in your hand					
	Always cut away from body					
	Never place a knife in hot water					
	Use a cutting board at all times					

	Objective	Exposure	Training	Production	Employable
Hand Equipment (cont'd)					
Knives should never be placed in drawers					
When cleaning or wiping a knife, keep the sharp edge turned away from body					
Always use a sharp knife					
Use knives for the purpose for which they were designed					
Pick up knives by the handle only. Take a firm grip on a knife handle					
When slicing round objects, cut a flat base					
Never force a meat saw					
When using a cleaver, be sure the item to be chopped is setting solidly					
When grating foods, never work the foods too close to the cutting surface					
Stationary Equipment					
Use a wooden stomper when feeding meat					
Before cleaning or adjusting any machine, be sure all electrical switches are in the "OFF" position & pull the plug					
Do not wear rings, wrist watch or a tie when operating electrical power equipment					
Never start a machine until you are sure all parts are in their proper places					
All electrical stationary equipment should be grounded					
Keeps hands to the front of the revolving bowl when operating the food cutter					

		Objective	Exposure	Training	Production	Employab.
Stationary Equipment (cont'd)	Never operate any machine unless you have been trained to use it properly					
	When using electrical power equipment, always follow manufacturer's instructions and recommendations					
Clothing	Wear proper shoes					
	Wear long sleeves that cling tightly to the arms					
	Never wear loose fitting clothing					
	Wear aprons at knee length					
	Tuck in all apron strings					
	Wear the recommended headgear					
China and Glassware	Discard any chipped or cracked china & glassware					
	Never use glassware in forming or preparing food					
	Never force a towel inside a glass to dry it					
	Never clean up broken china or glassware with the hands					
	Never place glassware in soapy water					
	When carrying china & glassware from one place to another, be alert & move cautiously					
Floors	When turning on anything electrical, do not stand on a wet floor					
	If anything is spilled on the floor, clean it up immediately					

Vocational/Special Education
Curriculum Planning Form

Student's Name _____

Recommended Occupational Area _____

Agreement of Shop Instructor _____ Yes _____ Nc

Agreement of Special Education Instructor _____ Yes _____ No

Immediate Vocational and Safety Tasks to be Accomplished:
Vocational Instructor

Immediate Mathematics and Vocabulary Tasks to be Accomplished:
Special Education Instructor

Needed Materials (Vocational/Special Education Instructors):

Special Facilities (Vocational/Special Education Instructors):

Needed Aids (Vocational/Special Education Instructors):

Time Needed to Complete Tasks (Vocational/Special Education Instructors):

Needed Ability Level of Students (Vocational/Special Education Instructors):

Vocational Instructor _____
Signature

Special Education Instructor _____
Signature

I.E.P.

Student's Name _____ Grade/Program _____

Birth Date _____ Teacher(s) _____

Present Date _____ School _____

Primary Assignment(s)	Date Started	Expected Duration of Services	Special Media or Materials
_____	_____	_____	_____
_____	_____	_____	_____

Reason for Assignment(s): _____

Services

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Dates for review and/or revision of the Individualized Education Program Plan:

_____

Personal responsible for the maintenance and implementation of the Individualized Education Program Plan:

_____

Appendix A

Shop Tasks - Plumbing

Vocational
Curriculum Assessment Inventory

Shop: Plumbing

Student Name: _____

Objective: Specific knowledge to be learned in order to perform occupational skills.

Exposure: Step by step demonstration has been presented by teacher or tutor through a sequential and developmental process.

Training: Performs entire task with direct assistance. Prompting is needed.

Production: The learner has been able to complete this task independently; however, he still lacks the speed and level of accuracy to be considered employable.

Employable: The learner is able to complete the task at a "normal rate" without error and independently for at least five consecutive trials.

✓ indicates that student has achieved this goal

✗ indicates that student is working on this objective

Training

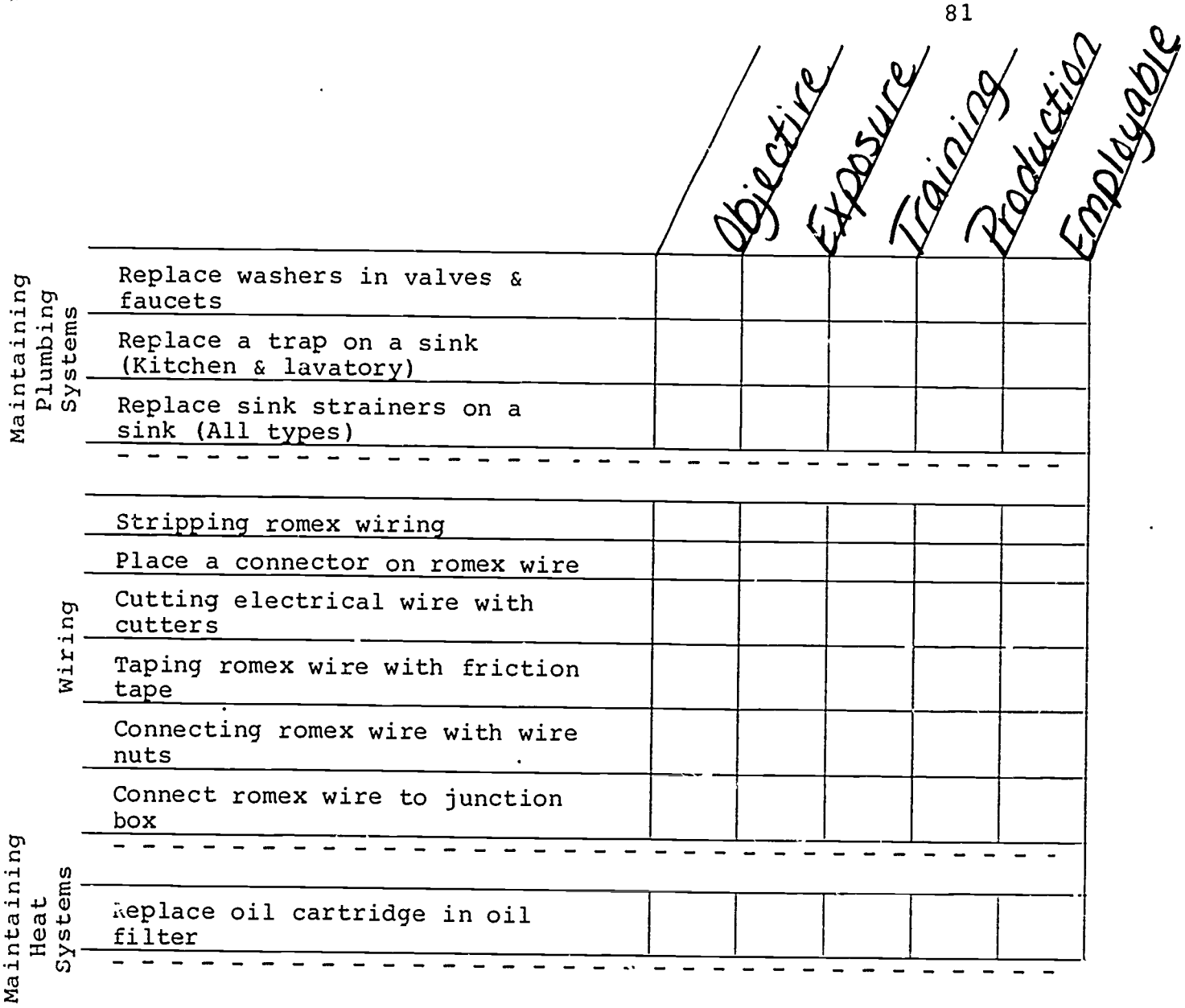
Plumbing Tasks	Objective	Exposure	Training	Production	Employable
Shop safety rules & regulations					
Handling & recognition of plumbing hand tools					
Reading the rule					
Marking with a pencil, soapstone, chalk, scribe					
Marking metal & pipe with a center punch					
Marking with scribe or pencil along a straight edge					

Training (cont'd)

	Objective	Exposure	Training	Production	Employable
Making a straight cut on sheet metal with aviation snips or tin shears					
Tighten and loosen nuts with a box end wrench					
Using a socket wrench with a ratchet					
Tighten and loosen nuts with an open end wrench					
Tighten and loosen fittings with a pipe wrench					
Using an open end pipe wrench					
Using a smooth jaw wrench					
Tightening & loosening screws with a screwdriver (flat & Phillips)					
Tightening & loosening fasteners with allen hex wrenches					
Holding & tightening with a channel rib lock pliers					
Driving nails with a hammer					
Pulling nails with a hammer					
Using a level for leveling					
Drilling holes in wood with an electric drill					
Drilling holes in piping with an electric drill					
Cutting to a line with a cross cut saw					
Using a basin wrench					
Chiseling across a grain					
Chiseling with a cold chisel					
Using and aligning with a drift pin					
Cutting with a hacksaw					

		Objective	Exposure	Training	Production	Employable
Training (cont'd)	Adjusting & using an adjustable wrench					
	Using a soldering iron & cleaning same with sal ammoniac block					
	Using a tri-stand pipe vise					
	Lighting a torch					
	Shaping smooth surfaces with a file					
Pipes and Fittings	Recognition of various types of steel pipe					
	Recognition of various types of copper tubing					
	Sizing of piping (I.D. measurements)					
	Recognition of steel C.I. and mallable fittings					
	Recognition of copper fittings					
	Recognition of plastic piping & fittings					
	Measuring pipe in plumbing trade (C-C E-C E-E etc.)					
	Cutting steel piping by hand					
	Cutting copper tubing by hand					
	Reaming steel piping by hand					
	Threading steel piping by hand					
Joining Pipe	Join steel pipe to plastic pipe					
	Join copper tubing pipe to copper tubing pipe					
	Join copper tubing to plastic pipe					
	Join copper tubing to steel pipe					

		Objective	Exposure	Training	Production	Employable
Joining Pipe (cont'd)	Join copper tubing with flared connections					
	Swage copper tubing pipe					
	Join plastic pipe to plastic pipe					
	Secure piping with hangers to wood surfaces					
Faucets & Valves	Disassemble & assemble gate valves					
	Disassemble & assemble globe valves					
	Disassemble & assemble stop & waste valves					
	Disassemble & assemble a compression faucet					
	Disassemble & assemble a single lever faucet					
Fixtures	Connect lavatory water supplies					
	Connect lavatory trap (Ess-P-J bends)					
	Install closet supply					
	Install kitchen sink faucet					
	Install sink basket strainers					
	Connect water supplies to sink faucet					
	Install sink trap (Kitchen-Ess-P-J bends)					
	Install continuous waste drain (center or end outlet)					


Objective
Exposure
Training
Production
Employable
Maintaining Plumbing Systems
Replace washers in valves & faucets
Replace a trap on a sink (Kitchen & lavatory)
Replace sink strainers on a sink (All types)
Wiring
Stripping romex wiring
Place a connector on romex wire
Cutting electrical wire with cutters
Taping romex wire with friction tape
Connecting romex wire with wire nuts
Connect romex wire to junction box
Maintaining Heat Systems
Replace oil cartridge in oil filter