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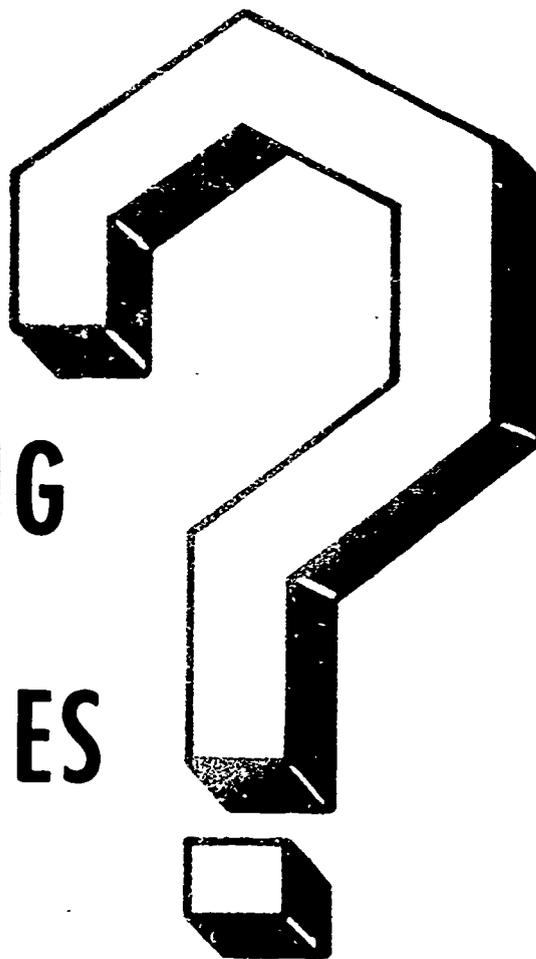
ABSTRACT

This curriculum guide, developed by a project committee of administrators, supervisors, instructors, and a counselor in the areas of industrial and vocational education, contains three extensive 12-week laboratory units at the junior high school level covering careers in the occupational clusters of business education, home economics, and industrial education. Funded under the Vocational Education Amendments of 1968, this course is intended to provide an overview of career opportunities, techniques for self-appraisal, and help in choosing courses leading to the students' occupational goals. In a 2-column format, teaching procedures are correlated with resource lists of transparencies and student handouts included with each unit. A course rationale, appended student worksheets, time allotments, and detailed behavioral objectives are provided. Final evaluation questions are given for each unit. (AG)

Curriculum Guide

ED 072308

INVESTIGATING CAREER OPPORTUNITIES



Little Rock Public Schools

- Little Rock, Arkansas •

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INVESTIGATING CAREER OPPORTUNITIES

**Little Rock Public Schools
Little Rock, Arkansas**

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**Printed by Students
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September 1972

F O R E W O R D

In today's changing and complex society, education for students must be more relevant to careers. The educational system should take steps to provide a process of education which will allow the student an opportunity to participate in exploratory work experiences.

This Curriculum Guide is designed to offer junior high school students opportunities to investigate career development possibilities. The students are not expected to make a definite career decision; however, it is hoped that experiences gained in the course will help them to determine some of their likes, dislikes, strengths, and weaknesses relative to various occupations. After completing this course, we feel that the boys and girls will be better prepared to select a course of study in high school which will lead to their occupational goal.

"Investigating Career Opportunities" has been divided into three established instructional areas--Business Education, Home Economics, and Industrial Education--for the purpose of grouping related occupations into clusters. This publication is not intended to limit the creativity of the teacher in any of these areas; nor does it mean to negate the fact that continuity of learning is achieved only by the individual. Teachers must involve students in planning and activities which are realistic to them.

We are indebted to the members of the committee who prepared this Guide.


John Fortenberry
Assistant Superintendent - Instruction

A C K N O W L E D G M E N T

The development of this Guide was made possible by the State Department of Education, Division of Vocational, Technical, and Adult Education, with money for research programs allocated from funds authorized by the Vocational Amendments of 1968, Part C-PL 90-576.

We appreciate the guidance and assistance of J. Marion Adams, Associate Director for Vocational, Technical, and Adult Education; Oswald Weise, Specialist, Vocational Orientation; and Grady Knight, Coordinator of Program Planning, Evaluation, and Exemplary Programs.

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TO THE TEACHER

The primary purpose of this course is to provide an organized approach to self-appraisal, an overview of careers, and guidance in selecting a future course of study for the student.

It should be emphasized that the teaching time allotted for each unit is suggested time only; however, each major instructional area should be completed in twelve weeks.

The desired outcome of this course is that students can attempt to match themselves with various career and educational possibilities while making realistic and flexible plans for the future based on their ability, interest, values, and goals.

You will note four basic parts in each unit of this Guide. These parts are: the student behavioral objectives, the instructional procedures, resources to be used, and the evaluation instrument.

In order to use this Guide more effectively, the following procedures are recommended:

1. Reproduce sufficient copies of the "handout" sheets in each unit so that each student in your class can be given a copy at the appropriate time.
2. Prepare the transparencies to be used in each unit.
3. Reproduce sufficient copies of Forms A, B, C, and D (located in the Appendix) so that each student can be given a copy to place in his notebook.
4. Require each student to keep a notebook entitled "Occupational Career Notebook." Form D is an outline of the items that should be kept in the notebook.

It is recommended that each teacher obtain a copy of the "Vocational Orientation Guide" published by the University of Arkansas and the State Department of Education. This document provides additional curriculum materials that would complement this Guide.

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UNIT 1: GENERAL INTRODUCTION
(Suggested Time: One Day)

Behavioral Objective

After completing this unit the students will have gained a working knowledge as to the structure, purpose, and scope of this course.

INSTRUCTIONAL

- . Discuss the career clusters of the three departments comprising this course.
- . Invite questions from the students after allowing time for the students to review Handout #1. Bring into discussion the time involvement and careers to be investigated.
- . Discuss steps in choosing and things to know about occupations.

RESOURCES

Handout #1

Handout #2

CAREER CLUSTERS

Business Education

Orientation to the Business Education Laboratory^s
Exploring Selected Occupations within a Cluster
Employer-Employee Relationships
Clerical Careers
Marketing and Distribution Careers
Careers Related to Tourism
Secretarial Careers
Bookkeeping-Accounting Careers
Data Processing Careers
Administrative and Managerial Occupations
Professional and Technical Careers
The Relationship of our Economic System to Occupations and the Consumer

Home Economics

Orientation to the Home Economics Laboratory
Careers in the Food Service Industry
Consumer and Homemaking Occupations
Textile and Clothing Careers
Health Service Careers
Exploring Public Service Careers
Social and Protective Service Careers
Exploring Personal Service Careers
Professional and Managerial Careers
Fine Arts and Humanities
Management of Money, Time, Credit, and Business Records
Understanding Civic Responsibilities
Evaluating the Careers that have been Explored

Industrial Education

Introduction to the Industrial Education Laboratory
Labor Unions and Related Organizations
Legal Requirements of Working
Drafting Careers
Building Trades
Forest Industry Careers
Career Opportunities in the Meta! Industries
Electrical and Electronic Careers
Graphic Arts
Exploring Agricultural Careers
Maintenance and Repair Careers
Transportation Careers
Planning the High School Program

STEPS IN CHOOSING AN OCCUPATION

The freedom to choose an occupation is one of the privileges of living in a democracy. This places upon you a serious responsibility, but it also affords you a tremendous opportunity.

Approach your occupation selection seriously. If you choose wisely, you become a more valuable member of society and a better worker in your community. If your choice is unwise, you penalize society for giving you freedom of choice.

SOME THINGS YOU NEED TO KNOW ABOUT AN OCCUPATION

1. Description of work involved
2. Working conditions
3. Hours of work
4. Abilities required
5. Earnings
6. Personality required
7. Education and training required (high school and post-high school)
8. Cost of education and training
9. Where education and training can be acquired
10. Advantages
11. Disadvantages
12. Outlook for future trends
13. Advancement possibilities
14. Demand for workers
15. Health and safety aspects
16. Contributions to society
17. What this occupation offers which may help meet your needs
18. What the occupation requires of me

SOME WAYS TO LEARN ABOUT OCCUPATIONS

1. Read about them
2. Talk to employed persons
3. Observe people on the job
4. See movies on jobs
5. Explore skills involved
6. Get a part-time job in afternoons, weekends, or during the summer

INTEREST: What you LIKE to do

ABILITY: What you CAN do

TO CHOOSE A CAREER INVOLVES KNOWING YOUR ABILITIES.

UNIT 2: DEVELOPING POSITIVE ATTITUDES AND PERSONAL CHARACTERISTICS
(Suggested Time: Three Days)

Behavioral Objectives

Upon completion of this unit the student will be able to:

1. Distinguish between positive and negative attitudes that affect our relationships with other people on a job.
2. Identify at least five positive and five negative attitudes from a list of characteristics which affect our relations with others.
3. Appreciate and understand why a "positive attitude" is essential to success in school, on the job, and in society as a whole.
4. Evaluate his or her own attitude in relation to school career selection and outlook on life.
5. Recognize desirable personal characteristics needed for any job.
6. Evaluate his or her own personal appearance, health habits, grooming, and sense of appropriateness about clothes.
7. Determine the work habits that are needed for any situation or job.
8. Evaluate his or her own work habits as measured by self-rating chart.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">Review behavioral objectives with students.Discuss positive versus negative attitudes.Discuss the traits that help mold one's personality. <u>Personality may be defined as what people see when they look at you, what they hear when you speak, and what they feel in your presence.</u>Ask students to identify at least five qualities that they admire in people.	Overhead Projector Handouts #1 and 1A Transparency #1 Transparency #2 Use overhead projector to record student responses (courtesy, dependability, loyalty, enthusiasm, honesty, neatness, open-mindedness, punctuality, tact, sense of humor, etc.).

INSTRUCTIONAL

- . Ask students to develop and write slogans for bulletin board such as "A Job Worth Doing is Worth Doing Right."
- . Keep alert for situations that display poor attitudes among students in the class. Use these situations for practical application.
- . Hand out fact sheet on "Personal Characteristics." Read and discuss.
- . Discuss "The Ten Commandments of Work Habits."
- . Discuss Transparencies Nos. 4, 5 6, and 7.

- . Allow students to rate themselves on evaluation sheets.

RESOURCES

Handout #2

Handout #3

Transparency #4

Transparency #5

Transparency #6

Transparency #7

Handout #4

Handout #5

Handout #6

Handout #6A

Handout #7

REVIEW QUESTIONS

1. What is the most important factor in job success?
2. Can proper attitudes be learned?
3. Can attitude be defined as your outlook on life?
4. Name five good attitudes.
5. What is personality?
6. Can attitude and personality be separated?
7. Is personal appearance a part of personality?
8. How can you develop a proper attitude if you do not have it at present?

ATTITUDES

The most important factor in job success is attitude. This is shown in the fact that the main reason young workers lose jobs is because of poor attitude. In fact, a recent study of beginning workers who had been fired showed that 80 percent lost their jobs because they could not get along well with other people. Getting along well with others does not just happen. It must be learned. Those who do learn to get along well with almost everyone are usually happier persons because people like them, they enjoy a greater feeling of job success, and they often receive higher salaries.

Behavior characteristics of those who have healthy, desirable attitudes are compared in the following chart with those who have negative or poor attitudes:

<u>POSITIVE ATTITUDE</u>	<u>NEGATIVE ATTITUDE</u>
-- Smiles easily	-- Rarely smiles
-- Willing to change his ideas and behavior when appropriate	-- Unwilling to change
-- Able to see the other person's point of view	-- Unable to see other person's point of view
-- Almost never complains	-- Complains about nearly everything
-- Accepts responsibility for mistakes	-- Blames others for own mistakes
-- Seldom criticizes others	-- Very critical of others
-- Considers what is good for or helpful to others	-- Thinks only of himself
-- When talking with another person, looks him in the eye	-- Unwilling or unable to look the other person in the eye

ATTITUDES

All the qualities that make you an individual different from every other individual on earth are summed up in the word personality. Your employer knows when he hires you that he is going to get a real person rather than a robot that has been made on an assembly line. Even so, there are certain fundamental qualities in your personality that are very important to him because they tell him, just as your appearance does, how other people are going to react to you and how you are going to react to them. This is obviously important if your job is one where you will be working directly with the customers. But employers won't hire unfriendly, disagreeable, or unreliable people even for those jobs where the employee never sees or talks to a customer. The employer wants his business to run smoothly, with a minimum of problems. He doesn't want to have to work all day with someone who is hard to get along with, and he doesn't want to put his other employees in that position either.

SOME CHARACTERISTICS WHICH AFFECT RELATIONS WITH OTHERS

ACCEPTANCE	RECOGNITION
APPRECIATION	RESPECT
CHEERFULNESS	REFINEMENT
CONSIDERATION	SINCERITY
COOPERATION	SYMPATHY
COURTESY	TACT
CRITICISM	THOUGHTFULNESS
EMPATHY	TOLERANCE
FRIENDLINESS	UNDERSTANDING
GENEROSITY	UNSELFISHNESS
LOYALTY	VOICE TONE
MANNERS	WILLINGNESS
POISE	

Can you think of other characteristics?

PERSONAL CHARACTERISTICS

Your Appearance

The first thing that the employer will be interested in is your appearance, because he is concerned about the impression you will make on other people. He will want to make sure that you will do a good job and that you can gain the trust of his customers. Every employer wants his customers to know that he runs his business in an efficient and honest way, and it is through his employees that he instills this idea in his customers' minds.

Appearance includes such things as good health habits, grooming, posture, and a sense of appropriateness about clothes. The new fashions in clothing have freed people, especially men, from having to dress alike, but employers still expect you to know what is in good taste for your job and what is not.

Your Work Habits

When an employer is thinking about hiring you, he is also aware of a fourth area--your approach to your work. He wants to be sure that he is going to get his money's worth from the salary that he will pay you. And he has to know if you like to work or if you just want to earn money, how you get started on a task, whether you are willing and able to see a given task through, whether you learn from your mistakes, and whether you can carry over what you have learned from each task to help you in similar situations.

THE TEN COMMANDMENTS OF WORK HABITS

1. Smile, and be of good cheer; for it promotes goodwill and thus increases efficiency.
2. Thou shalt not yell, but speak clearly and distinctly to the person with whom you are talking.
3. Thou shalt not pass the buck, but shalt accept thy errors as thine, and endeavor to eliminate such errors.
4. Thou shalt not grumble about thy work, for there is someone else who will do thy work cheerfully.
5. Thou shalt not consider thyself indispensable; even presidents can be replaced.
6. Thou shalt not condescend, for there are no class distinctions among intelligent people, and each is equal to the other.
7. Thou shalt not deem thyself superior, and talk down to co-workers; one day you may find thyself looking up to them.
8. Thou shalt not take the name of the co-worker and use it unfairly or maliciously in regard to gossip.
9. Thou shalt be responsible for thine own job, and only thine; let everyone take care of his responsibility.
10. Thou shalt remember that an office is to be run as a place of business, for employees are adults and should act and be treated accordingly.

EVALUATION

Your Appearance

To see how you rate on the subject of appearance, here are some of the factors that employers think are important. In each case, read the statement and rate yourself from 1 to 5. Use 1 for always, 2 for usually, 3 for sometimes, 4 for seldom, and 5 for never.

Do you:

- 1. Eat a well-balanced diet?
- 2. Try to keep your weight within the limits that are right for you?
- 3. Take a bath or shower once a day?
- 4. Use a reliable deodorant routinely?
- 5. Brush your teeth and see your dentist regularly?
- 6. Get an adequate amount of rest, fresh air, and sunshine?
- 7. Have a regular exercise program?
- 8. Take care of your skin?
- 9. Keep your fingernails manicured?
- 10. Keep your hair clean, neat, and styled in a way that is not extreme?
- 11. Wear clothes that are always clean and well pressed?
- 12. Take care not to wear clothes that need mending?
- 13. Keep your shoes repaired and clean?
- 14. Try to wear the appropriate outfit for every occasion?
- 15. Use good taste in matching clothes and accessories?
- 16. Know what is the right amount of jewelry?
- 17. Have a sense of balance rather than following the current fads in clothing?
- 18. Practice correct posture when sitting, standing, or walking?
- 19. Look people in the eye when you are talking or listening to them?
- 20. Know how to sit or stand still without looking tense or nervous?

EVALUATION

Your Work Habits

Rate yourself from 1 to 5 on the questions below to see which of your work habits need strengthening.

Do you:

1. Enjoy finding solutions for problems?
2. Tackle a job that you can see needs doing without waiting to be told?
3. Make sure that you understand any directions or instructions before you start?
4. Try to think through the whole task before you start working and to visualize a step-by-step plan for finishing it?
5. Finish whatever you start willingly without having to be prodded?
6. Work at a steady pace with a minimum of rest periods?
7. Know how to avoid wasted effort?
8. Know how to finish a task in the appointed time?
9. Know how to tell the difference between what's important and what's unimportant in getting a task done?
10. Believe that any job worth doing at all is worth doing well?
11. Set high standards for yourself and try to meet them to the best of your ability?
12. Refuse to get discouraged or to quit when you meet obstacles?
13. Ask for help when you see you can't finish a job without it?
14. Accept criticism as something designed to help you in the future?
15. Feel that you can always learn something new and act accordingly?
16. Willingly admit your mistakes instead of blaming others for them?
17. Make sure that you know exactly what you did wrong when you have made a mistake?
18. Try to see what's already familiar to you about new problems that you have to face?
19. Enjoy a feeling of success when you have finished a job?
20. Care about your own future?

EVALUATION

1. The list of questions below will give you an idea of the kind of attitudes and personality traits that employers look for. Think carefully about each question and then rate yourself from 1 to 5 on your own attitude. In each use 1 for always, 2 for usually, 3 for sometimes, 4 for seldom and 5 for never.

Are you:

- 1. Sure enough of yourself that you don't have to be either retiring or aggressive?
- 2. Comfortable when you are on your own in a social situation and can't lean on your friends?
- 3. Able to make small talk with strangers when the situation calls for it?
- 4. Able to remember people's names and faces when you see them a second time?
- 5. Willing to go out of your way to help someone else?
- 6. Considerate enough of the other person to always be on time for appointments?
- 7. Aware of how much easier it is in the long run to always tell the truth?
- 8. Willing to listen to the other person's point of view?
- 9. Able to state your point of view tactfully so that the other person's feelings aren't hurt?
- 10. Aware that you can be friends with people who sometimes disagree with you?
- 11. As tolerant of the other person's mistakes as you are of your own?
- 12. Able to "do unto others as you would have them do unto you" in your day-by-day living?
- 13. Able to laugh when the joke is on you?
- 14. Aware that good manners are like oil in that they take the friction out of people-to-people contacts?
- 15. Loyal to your family and friends?
- 16. Able to control your moods so that you don't get nasty or angry when things don't suit you?

UNIT 2
Handout #6A

17. Able to keep your complaints to a minimum and to yourself?
18. Interested in learning more about the world around you?
19. Willing to try new ways of doing things?
20. Aware of what is required of you when you are a member of a team?

When you have completed the 20 questions go back and circle the number of each question rated 3 or below. Read these carefully and try to improve as we continue our study about careers. PLEASE KEEP THIS RATING IN YOUR NOTEBOOK.

11. Determine whether the qualities of an employee (worker) listed below represent a positive or a negative attitude. Use the letters "p" and "n" for your answers and write them on the blank at the left of the quality.

- | | |
|-----------------------------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Smiles easily | <input type="checkbox"/> Blames others for mistakes |
| <input type="checkbox"/> Sarcastic | <input type="checkbox"/> Critical of others |
| <input type="checkbox"/> Considerate | <input type="checkbox"/> Understanding |
| <input type="checkbox"/> Sees other person's point of view | <input type="checkbox"/> Disagreeable |
| <input type="checkbox"/> Respectful | <input type="checkbox"/> Honest |
| <input type="checkbox"/> Courteous | <input type="checkbox"/> Selfish |
| <input type="checkbox"/> Unable to look other people in the eye | <input type="checkbox"/> Willing to change his ideas |
| <input type="checkbox"/> Generous | <input type="checkbox"/> Unreliable |
| <input type="checkbox"/> Friendly | <input type="checkbox"/> Cooperative |
| <input type="checkbox"/> Wears a frown | <input type="checkbox"/> Shows appreciation |

SELF-ANALYSIS OF PHYSICAL CHARACTERISTICS

Name _____

Date _____

Rating _____

Frequently we offend others unknowingly. The list below was compiled from the results of hundreds of answers to the question "What physical traits keep people from presenting a good appearance and hence hurt their personalities?" Place a check mark before each thing that applies to you.

- ___ Dirty fingernails
- ___ Dirty hands
- ___ Beard
- ___ Dirty neck
- ___ Yellow or unclean teeth
- ___ Visible blackheads
- ___ Pimples on face
- ___ Dirty ears
- ___ Greasy hair
- ___ Dirty scalp
- ___ Dandruff
- ___ Hair too long
- ___ Ragged fingernails
- ___ Dirty shirt
- ___ Soiled underclothes
- ___ Baggy trousers

- ___ Unshined shoes
- ___ Dirty, dusty shoes
- ___ Body odor
- ___ Halitosis
- ___ Too few baths
- ___ Inappropriate clothes
- ___ Stoop shoulders
- ___ Awkard posture
- ___ Hair not combed
- ___ Greasy skin
- ___ Broken shoestrings
- ___ Buttons missing
- ___ Clothes fitting poorly
- ___ Dirty handkerchief
- ___ Dirty collar and cuffs
- ___ Run-over heels

Number of checks _____

If you have checked fewer than five items, you are neater and better groomed than the average college student.

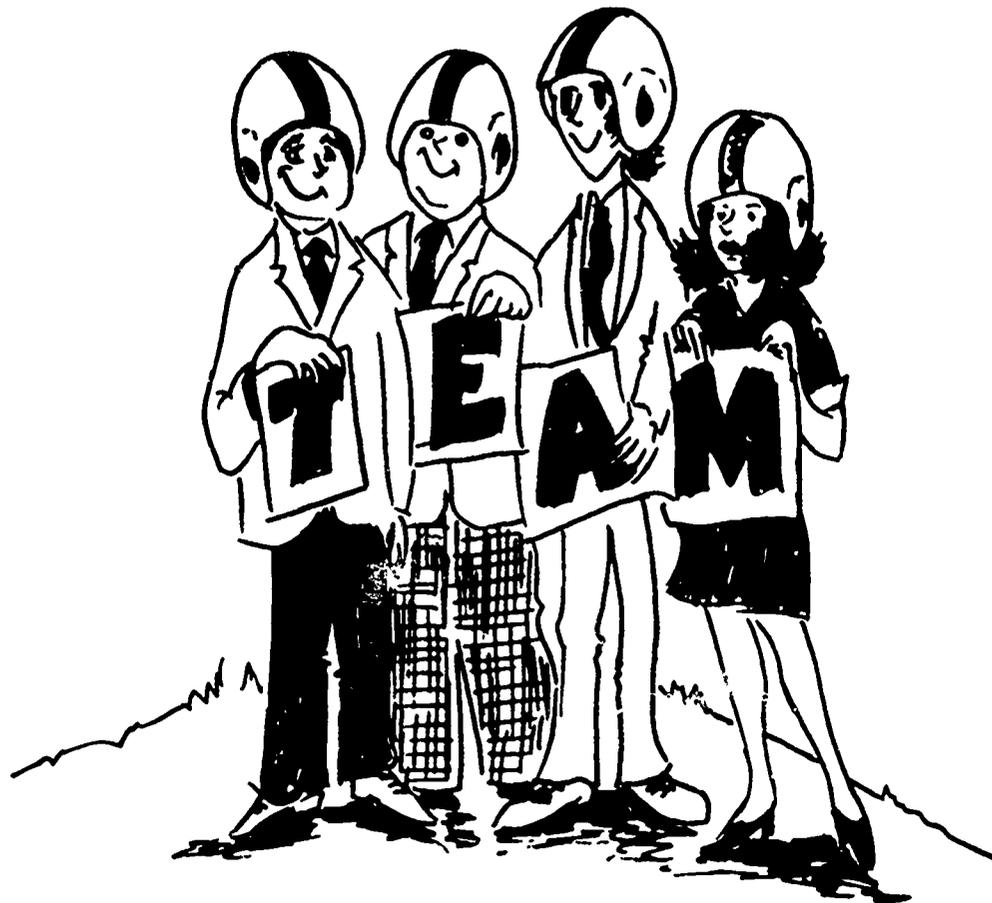
If you have checked between five and ten items, you are below average in neatness and should do something about it now.

If you have checked more than fifteen, you are in pretty bad shape. Drastic action is necessary.

Look over the items that you checked. Each one is a personality defect in the eyes of other persons. Each defect can be eliminated.

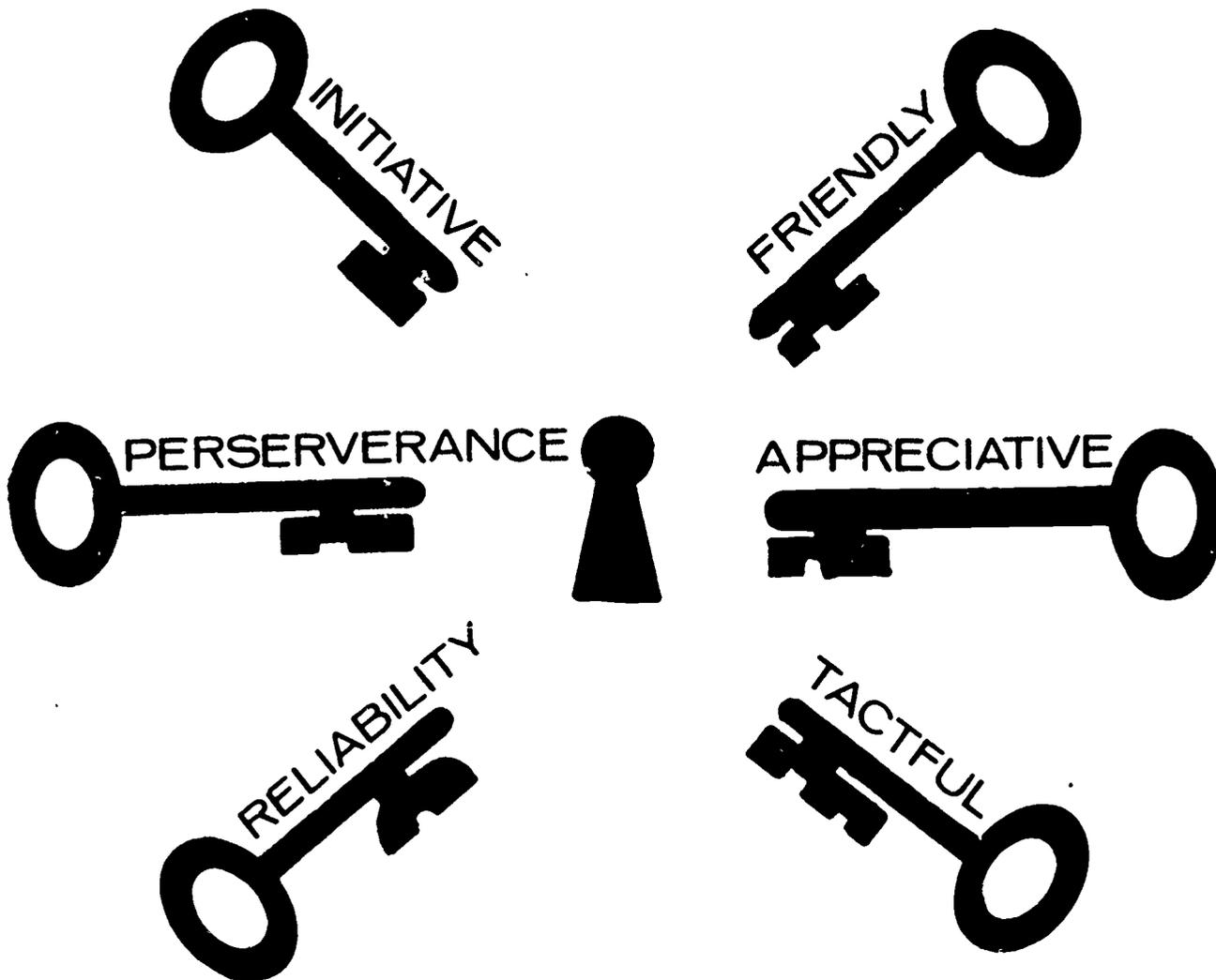
UNIT 2
Transparency #1

DEVELOPING PROPER ATTITUDES



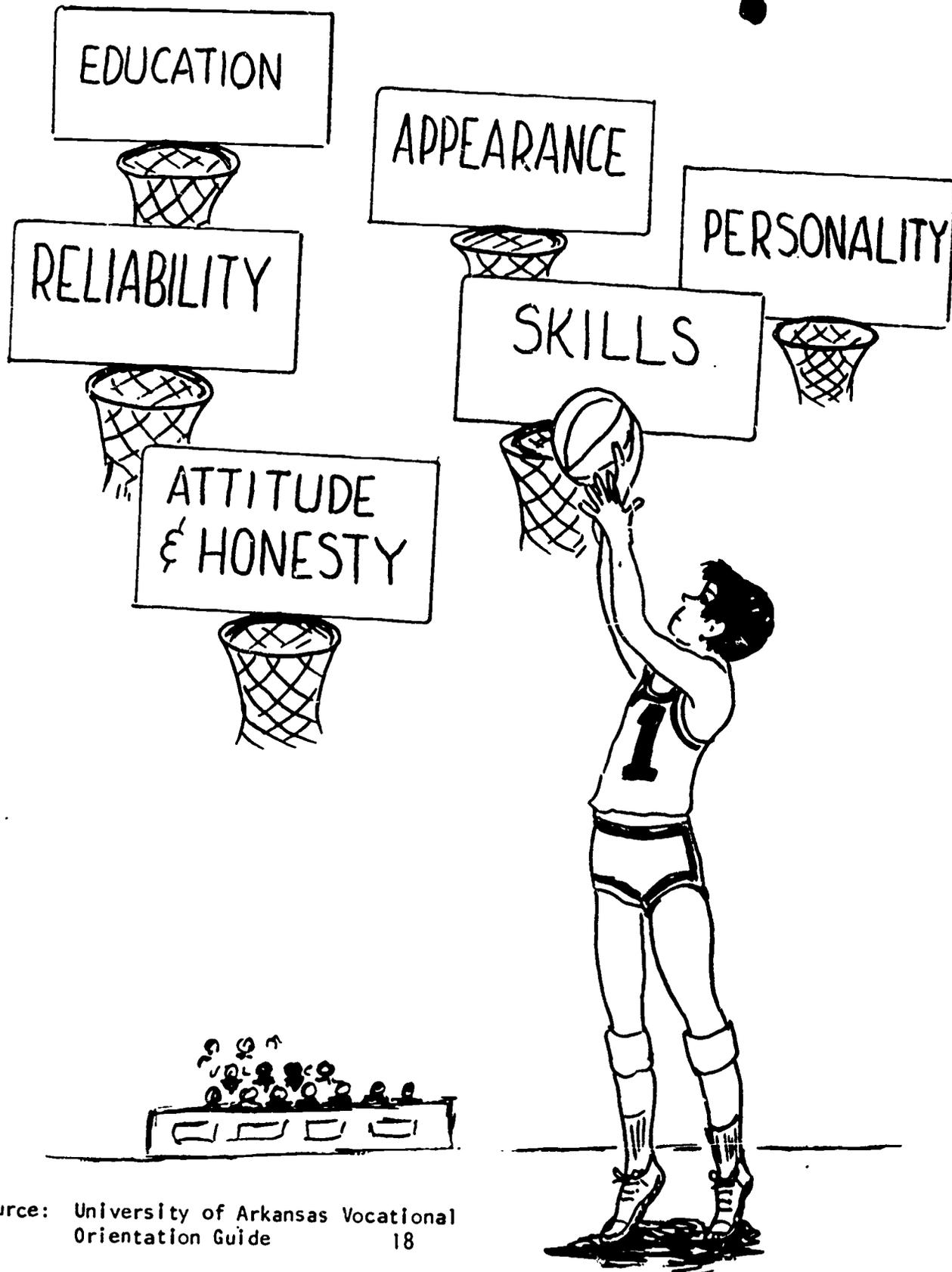
Source: University of Arkansas Vocational Orientation Guide

Do you have the keys to a good PERSONALITY ?



Source: University of Arkansas Vocational Orientation Guide

WILL YOU MAKE YOUR **PROMOTION ?**

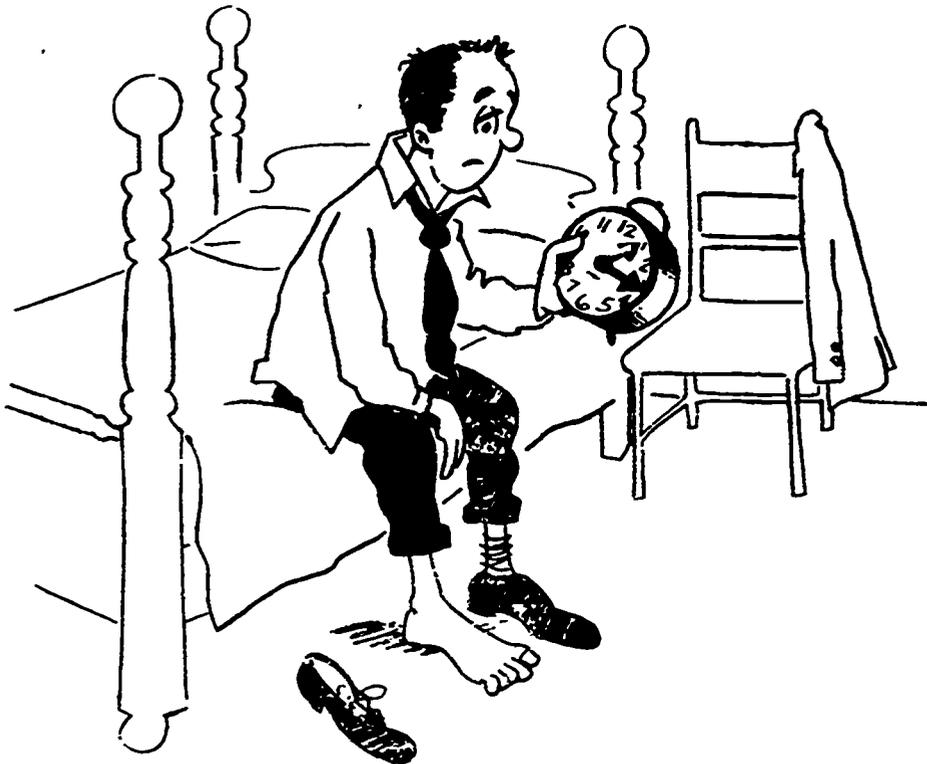


DO YOU SEE YOURSELF AS OTHERS SEE YOU?



LEARN TO LOOK AT YOURSELF HONESTLY--AND NOT THROUGH A FALSE MIRROR.

ARE YOU DOWNGRADING YOUR FUTURE?



PROPER REST IS REQUIRED FOR YOU

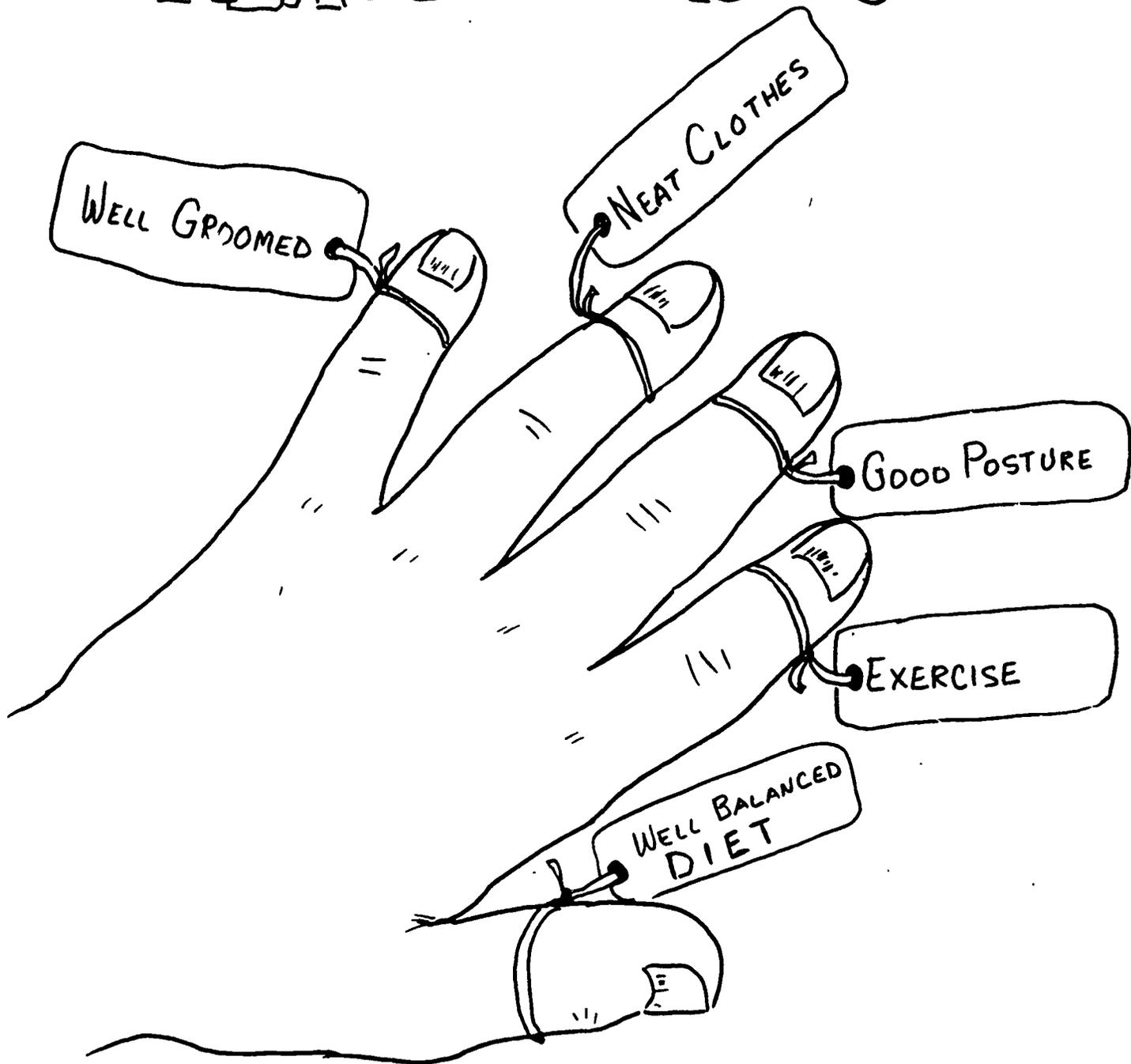
TO PERFORM AT YOUR BEST.

SOME CHARACTERISTICS WHICH MAKE WORK EASIER
AND WHICH SUGGEST THE BEST METHODS OF DOING A JOB

ACCURACY	INDUSTRIOUSNESS
ADAPTABILITY	INGENUITY
ALERTNESS	INTELLIGENCE
AWARENESS	INTEREST
COMMON SENSE	JUDGMENT
DEPENDABILITY	MEMORY
DISCRETION	ORGANIZATION
EFFICIENCY	PATIENCE
EMOTIONAL STABILITY	PERSISTENCE
ENDURANCE	PRIDE IN WORK
FOLLOWING DIRECTIONS	PUNCTUALITY
FORESIGHT	RESOURCEFULNESS
GOOD HABITS	RESPONSIBILITY
HONESTY	THOROUGHNESS
HUMOR	VERSATILITY

CAN YOU THINK OF OTHER CHARACTERISTICS?

DEVELOPING GOOD HEALTH HABITS



Source: University of Arkansas Vocational Orientation Guide

UNIT 3: ORIENTATION TO THE BUSINESS EDUCATION LABORATORY
(Suggested Time: Three Days)

Behavioral Objectives

1. Upon completion of this unit, the student will be able to identify six of the eight Business Career Clusters.
2. The student will become acquainted with the materials and the equipment in the laboratory.
3. The student will learn classroom procedures and the guides for classroom behavior and why they are important.
4. The student will comprehend the organization chart which will become the classroom organization for the unit.
5. The student will be able to identify a job and recognize its relationship to the other jobs on the chart and in the major clusters.
6. The student will keep a notebook specifically for the purpose of keeping class notes and handouts.
7. The student will comprehend the use of "Form A" which will help him explore systematically occupations within the major clusters.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Go over behavioral objectives. Appoint a student committee to build a bulletin board display around the article "Business".. Go over list of Office Careers and explain to students. (Keep list where students can see each day while studying unit).. Explain the laboratory, materials, and equipment available in your classroom for student use on an assignment basis.. Instruct the student that he will be expected each day to:<ol style="list-style-type: none">1. Enter the classroom in a business-like manner2. Put away coats and books3. Await instructions (written, oral, or printed)4. Get supplies5. Do assignments6. Put away supplies and/or equipment	<p>List of objectives</p> <p>Handout #1</p> <p>Handout #2</p> <p>Use the physical plant, materials, and equipment from which to talk</p> <p>Use chalkboard</p>

INSTRUCTIONAL

- . Go over acceptable rules of behavior. Stress why they are important. Use overhead projector and transparency.
- . Give pretest.
 1. If you were going into a business field, what field would you enter and why?
 2. Choose one of the jobs on the chart that you would like to do best. List the duties for this job and tell why you chose it.
- . Present the organizational chart to the class.
- . Have student choose a job from the prepared tags.
- . Give brief explanation of each job and its importance in the organization.
- . Explain the notebook to be kept by the students.
- . Introduction to Occupational Career Notebook.
- . Illustrate cardboard binder with pockets.
- . Provide each student with "Student Guide for Systematically Studying and Exploring an Occupation."
- . Explain the use of Form A and its use in the study of each occupation within the major clusters.

RESOURCES

Transparency #1

Use chalkboard

Handout #3

Teacher-made desk tags naming each of the jobs listed on the organization chart

List of occupations under each office career cluster - Handouts #4, #5, #6

Form D

Form A

B U S I N E S S

Those of us who really want to be successful in our daily work should realize that there are many people, all kinds of people, in the act with us. Our personal effectiveness is in direct relation to our ability to get along with other people. I'd like to show you how easy this can be.

In this demonstration the key word is business. When we look over any group in an office, or store, or factory, we find all kinds of people, and we wonder what molds them together into an efficient unit. Represented are both sexes and different ages, backgrounds, education, national origin, religions, and family environments. But we all have one thing in common: WE ARE TOGETHER IN BUSINESS.

When we look at this word BUSINESS, what do we see? We find that U and I are in business. In fact, if U and I were not in business, then what is left is an assortment of desks and chairs, equipment facilities, methods--none of which gets anything done of itself. These inanimate components of business are there also when we're gone, and nothing happens. It is only when U and I come back into business that business becomes alive again. BUSINESS IS PEOPLE.

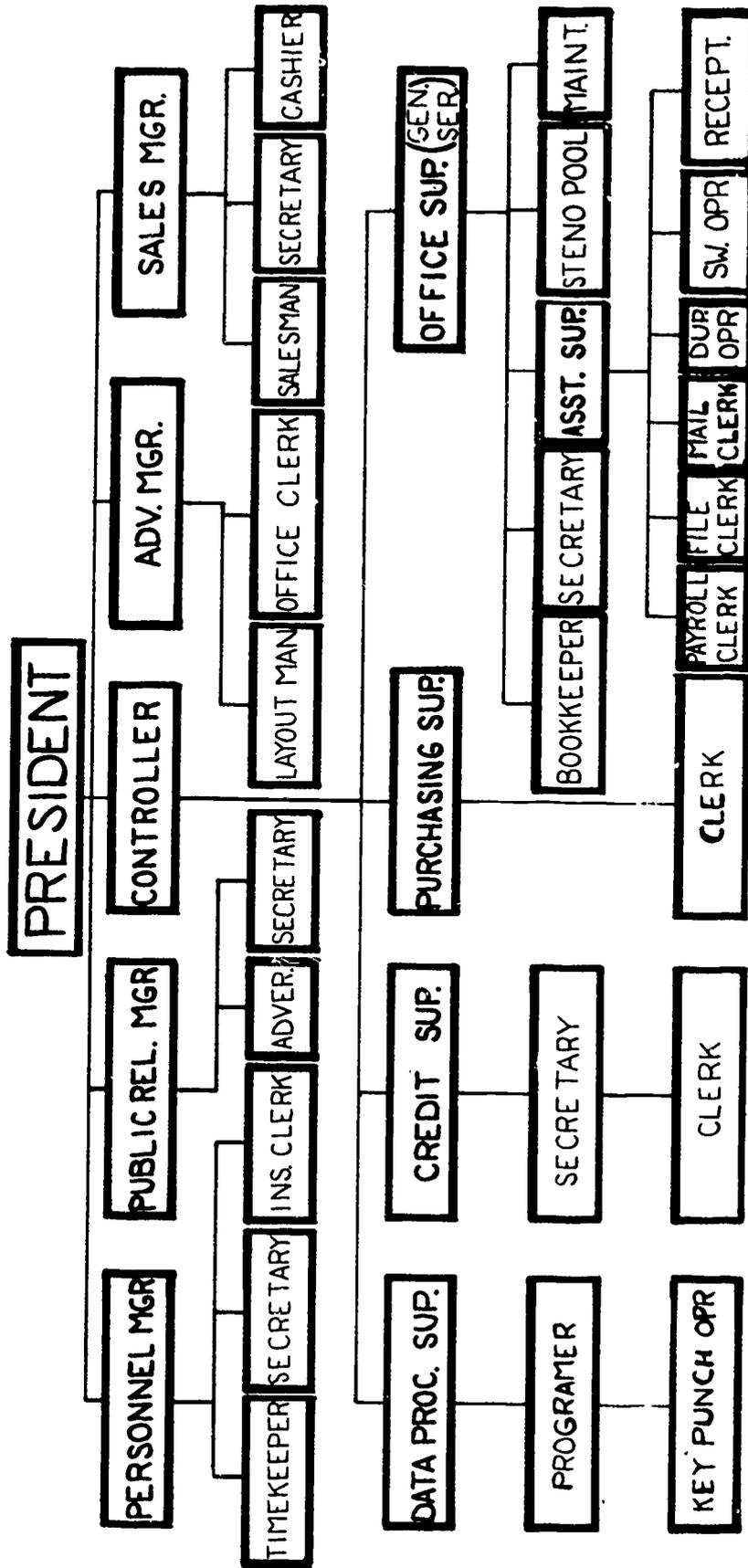
Reprinted from "From Nine to Five," The Dartnell Corporation, Chicago, Illinois.

UNIT 3
Handout #2

BUSINESS EDUCATION - OFFICE CAREER CLUSTERS

1. Administrative and Managerial Occupations
2. General Clerical Occupations
3. Marketing and Distribution Occupations
4. Secretarial Occupations
5. Accounting and Computing Occupations
6. Data Processing Occupations
7. Tourism Occupations
8. Professional and Technical Occupations

OC RECORD- TAPE CO.



UNIT 3
Handout #4

I. ADMINISTRATIVE AND MANAGERIAL OCCUPATIONS

Director

President

Controller

Sales Manager

Office Manager

Credit Manager

Personnel Director

Public Relations Director

Advertising Director

In-Basket Supervisor

Maintenance Supervisor

II. GENERAL CLERICAL OCCUPATIONS

Office Clerk

Switchboard Operator

File Clerk

Mail Clerk

Duplicator Operator

Claims Clerk

Cashier

Shipping and Receiving

Stock Clerk

Clerk-Typist

Accounting Clerk

UNIT 3
Handout #5

III. MARKETING AND SALES OCCUPATIONS

Advertising Clerk

Advertising Layout Clerk

Salesman

Clerks

Supply Clerks

Buyers

Packagers

Receiving Clerk

IV. SECRETARIAL

Receptionist

Stenographer

Typist

Executive Secretary

Junior Secretary

Legal Secretary

Medical Secretary

Private Secretary

Educational Secretary (Schools, Colleges, etc.)

Office Manager

UNIT 3
Handout #6

V. ACCOUNTING AND COMPUTING OCCUPATIONS

Accounts Payable Clerk

Actuary

Auditor

Timekeeper

Insurance Clerk

Bookkeeper

Payroll Clerk

Purchasing Agent

Junior Accountant

Certified Public Accountant

Government Accountant

Cost Accounting Accountant

Bank Teller

Bookkeeping Machine Operator

Accounts Receivable Clerk

VI. DATA PROCESSING

Programmer

Key Punch Operator

Computer Operator

MTST Operator

Computer Programmer

Systems Analyst

Console Operator

Unit Record Operator

UNIT 3
Transparency #1

SOME GENERAL BEHAVIOR PATTERNS THAT ARE IMPORTANT

1. Common courtesies
2. Consideration of others and their property
3. Degree of sincerity--compliment frequently and honestly
4. Tactfulness--consideration of others and their feelings
5. Cheerfulness--reflects confidence
6. Willingness to assume more than your share
7. Agreeableness--not demanding your way all the time
8. Avoiding finding fault and discussing others
9. Avoiding crudities of speech
10. Generosity--not so much with money but with your time, praise, thoughtfulness, kindness, smiles, understanding, empathy, appreciation, courtesy, work, and effort

CHARACTERISTICS WHICH AFFECT RELATIONS WITH OTHERS

Acceptance
Appreciation
Cheerfulness
Consideration
Cooperation
Courtesy
Criticism
Empathy
Friendliness
Generosity
Loyalty
Manners
Poise

Recognition
Respect
Refinement
Sincerity
Sympathy
Tact
Thoughtfulness
Tolerance
Understanding
Unselfishness
Voice Tone
Willingness

CAN YOU THINK OF OTHER CHARACTERISTICS?

UNIT 4: EXPLORING SELECTED OCCUPATIONS WITHIN A CLUSTER
(Suggested Time: Three Days)

Behavioral Objectives

Upon completion of this unit, the student, on a written test, will demonstrate his knowledge of how to explore an occupation by being able to:

1. Identify the basic factors to consider about himself when selecting an occupation to study.
2. Determine correct and complete information needed for each factor that is considered about an occupation.
3. List at least four sources that can be used to secure information about an occupation.
4. Evaluate his likes or dislikes and traits in working with tools, machines, materials, equipment, and work processes common to the occupation being explored by the class for the purpose of illustration of how to explore.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<p>The teacher should make sure that a definite procedure for exploring and studying a specific occupation within an Office Career Cluster is set forth in this unit.</p> <ul style="list-style-type: none">• Review Office Career Clusters• Review list showing at least ten jobs under each group. Explain to class. (Students should refer to lists handed out in Orientation Unit.)• Discuss Handout #1.• Explain and demonstrate how the <u>Dictionary of Occupational Titles</u>, the <u>Occupational Outlook Handbook</u>, and other available information sources should be used.• Acquaint the students with other "Major Sources of Occupational Information"	<p>Poster listing Office Career Clusters</p> <p>Overhead Projector</p> <p>Handout #1</p> <p><u>DOT and Occupational Outlook Handbook, U.S. Department of Labor</u></p> <p>Handout #1</p>

INSTRUCTIONAL

- . Provide each student with a copy of "Factors to be Considered When Exploring an Occupation." Explain form and factors.
- . Class and homework assignment: Choose an occupation in which the class has shown considerable interest and assign each student a factor to research. Students will make a written report on these factors. (Explain that the information will be projected on an opaque projector. Suggest that 8" X 10" cartoons and illustrations will make their assignment more meaningful.)
- . Distribute a copy of Form A to each student.
- . Allow each student to project his report and/or cartoon or illustration to class. As reports are projected, class members may make a trial run by filling in Form A.
- . Each student will explore at least one occupation in each Office Career Cluster during the twelve weeks of study. Form A will be provided for each occupation explored.

ENRICHMENT:

- . Students may explore more than one occupation in each Office Career Cluster.
- . Suggestion: Secure a worker from each career cluster to speak to the class.

RESOURCES

Handout #2

Form A

Opaque Projector

Form A

Form B

UNIT 4
Handout #1

Each job that is defined in the Dictionary of Occupational Titles has a six-digit code number. Each digit of the code tells something about the job to which it is assigned. The first digit of the code indicates the broad occupational category into which the job falls. The code for all jobs related to clerical and sales occupations, for example, begins with the number 2. The two-digit code 21 includes all computing and account-recording occupations. The three-digit code 210 includes bookkeepers; 211 is the number for cashiers.'

MAJOR SOURCES OF OCCUPATIONAL INFORMATION

1. School and college teachers and counselors
2. Encyclopedias, books, pamphlets (check your library)
3. Films, filmstrips, tapes, slides
4. Professional, trade, and business associations
5. Labor unions
6. Persons working in the field
7. Employers
8. Public and private counseling agencies
9. Government agencies--state and federal
10. Chambers of Commerce
11. Dictionary of Occupational Titles (DOT)
12. Occupational Outlook Handbook

*Source: Occupations and Careers, by S. Norman Feingold & Sol Swerdloff, Webster Division, McGraw-Hill Book Co., pp. 135-144.

FACTORS TO CONSIDER WHEN EXPLORING AN OCCUPATION

I. Factors to Consider About Oneself

1. Interest
2. Aptitude
3. Achievements (School Grades)
4. Experience

II. Factors to Consider About Each Occupation

1. Outlook for employment--location
2. Nature of work--duties and responsibilities
3. Personal qualifications required
4. Education or training needed
5. Tools and equipment needed
6. Working conditions
7. Legal requirements
8. Methods of entrance
9. Economic return and benefits
10. Advantages and disadvantages
11. Advancement opportunities
12. Education for dependents
13. Job satisfaction
14. Job accomplishments
15. Available housing and living conditions (should be considered when one is actually selecting a job)
16. Facilities available for leisure time activities (above note applies)

EVALUATION

1. Name the factors about an occupation that you would like to explore further.
2. Do you feel ready to assess yourself in relationship to an occupation and make a tentative decision? If not, why?
3. Why is it important that you explore several occupations before making a tentative choice for further study?
4. How do you explore an occupation that interests you?
5. What factors should you consider when learning about and exploring each occupation within a cluster?
6. List four sources that can be used to acquire information about an occupation.

UNIT 5: EMPLOYER-EMPLOYEE RELATIONSHIPS
(Suggested Time: Four Days)

Behavioral Objectives

Upon completion of this unit, the student will be able to:

1. On a written test, list eight (out of twelve presented to class) things the employer has the right to expect of his employees.
2. On a written test, list five (out of eight) things an employee has the right to expect of his employer.
3. Write a half-page report on the importance of proper attitudes as an employee. (Explain how the proper attitude can affect your work, your relationship with other workers, and the business as a whole.)
4. Explain why it is important to be punctual, loyal, trustworthy, and dependable on the job.
5. Explain the proper care of a check received for payment of work.

INSTRUCTIONAL

Before introducing the unit, prepare bulletin board on employer-employee relationships

- To begin unit, write the following statement and questions on the chalkboard:

"Poor relationships between employer and employee account for 80 percent of all job losses."

- Questions: (1) List as many things as you can think of that your future employer might expect of you as a worker. (2) List as many things as you can think of that you will expect of your future employer as an employee.

Allow students to work in groups to work out lists. Choose a recorder for each group.

RESOURCES

Materials for bulletin board may be found at the end of this Unit. Bulletin board materials, 1 through 5.

Pretest

INSTRUCTIONAL

- Discuss "What the Employer has the Right to expect from His Employee" and "What the Employee has the Right to expect from His Employer"

Students will listen closely and add to their lists while teacher talks to class.

Allow several students to read lists aloud in class.

Instruct students to put this assignment in notebook as a part of the work for the unit.

- Film "Am I Trustworthy" (#118) or conduct class discussion on trustworthiness, returning borrowed articles, keeping promises, and doing a good job with assigned jobs.

Students will take notes and work in notebooks.

- Case Problems: Read and discuss "Appropriate Dress for the Office" and "Getting Along with Others"
- Work exercises on "Remember That Time is Important" and "Keep in Mind That Rules are Important"
- Instruct students to complete Handout #6
- Ask students to complete application form.
- Give an "Application Check Sheet" to each student.
- Give "Job Application Test"
- Students may participate in role play activity using application form. (One student will represent the employer--another the applicant)

RESOURCES

Handouts #1 and #2
(See Enrichment for additional handouts.)

Arkansas Department of
Education Film Library

Handout #3

Handout #4
Handout #5

Handout #6

Handout #7

Handout #8

Handout #9

INSTRUCTIONAL

ENRICHMENT

- . Leaflet "How to Sell Yourself to an Employer"
- . Booklet "Your Job and How to Lose It!"
- . Suggestions for Speakers:

Ask a Personnel Director from a local business to speak on "What His Business Expects from an Employee."

Ask a Cooperative Office Education Coordinator from the local public school system to speak on "What an Employee Expects of His Employer" and "What an Employer Expects of His Employees."

Invite a friend or an acquaintance to speak to the class about employer-employee relationships.
- . Role Play: Divide the class in two groups, one representing employers, the other representing employees. Have each student prepare cartoons, illustrations, skits, or role-play situations to present to the class.
- . Additional Exercises: You and Your Job, pp. 93-102
- . Transparencies: "Are You an Office Irritation?"
- . Leaflet "How to Prepare Yourself for Job Interviews"
- . Have students search magazines and newspapers and choose three clothing outfits that they think appropriate for office appare.. Instruct them to bring to class and illustrate, then place in notebook.

RESOURCES

ESD

ESD

You and Your Job,
Finding It, Getting It,
Keeping It, South-
Western, pp. 93-102

3-M Transparencies

ESD

Magazines and News-
papers

INSTRUCTIONAL

- . Eight Employment Posters - Excellent for illustrating content of this Unit.

- . Films "You and Your Work" and "Introducing the New Worker to His Job"

RESOURCES

Posters - Eight Employment Posters, Mafex Associates, Inc.
111 Barron Avenue
Box 519
Johnstown, Pa.

Arkansas Department of Education Film Library

EMPLOYER-EMPLOYEE RELATIONSHIPS

WHAT THE EMPLOYER HAS THE RIGHT TO EXPECT FROM HIS EMPLOYEE:

1. Display proper attitude
 - a. about work
 - b. about employer and organization (honesty, trustworthy, and dependable)
 - c. about other workers
2. Be punctual
 - a. Be on time in the morning and after breaks.
 - b. Don't be a clock watcher during work.
 - c. Be willing to work overtime in cases of emergencies.
3. Be regular in attendance (absent only when ill or an emergency arises).
4. Be regular and prompt in performance of work and responsibilities. Be consistent in performance.
5. Do not ask for special favors.
6. Obey rules and regulations (office procedures, etc.).
7. Think for yourself, but be humble enough to ask for help when needed.
8. Seek to improve skills already obtained.
9. Develop new skills required by job.
10. Dress properly for the job

EMPLOYER-EMPLOYEE RELATIONSHIPS

WHAT THE EMPLOYEE HAS THE RIGHT TO EXPECT FROM HIS EMPLOYER:

1. Good working conditions.
2. Consideration for safety and health of employee
 - a. work place free from hazards
 - b. work place that is neat and comfortable
 - c. insurance for injury on the job
3. Respect as an individual and to be treated fairly--given the same privileges as other employees.
4. A fair salary.
5. A chance for advancement when earned.
6. A detailed explanation of duties.
7. An understanding of working conditions such as hours, vacations, salary, pay dates, and deductions.

EMPLOYER-EMPLOYEE RELATIONSHIPS

APPROPRIATE DRESS FOR THE OFFICE

Margie was one of two women employed in a small business establishment. Margie, a young woman in her early 20's, rather attractive, married with two small children, constantly wore rather tight and short skirts or dresses to the office.

Mrs. Wilson, the bookkeeper who was in her late 40's, had casually mentioned several times how much more comfortable the more loosely fitting skirts were, especially since there are so many men coming into the office.

1. What is the problem?
2. What more can Mrs. Wilson say?
3. How can Margie be told in a polite way about her problem?
4. What would be your defense if you were in Margie's place?

GETTING ALONG WITH OTHERS

Nellie, a clerk-typist in a small business office, is a high school graduate. She was an excellent student in shorthand, typing, and office practice. While in high school, she was member of many groups, including cheerleader and editor of the annual. Nellie was a leader, and everyone liked her.

After graduation, Nellie went to work in an office with three other women, all of whom were older and had more experience than she did. After one month of employment, Nellie began to correct the others for simple mistakes. At first they took it lightly, but they soon grew tired of her criticisms.

One day, as Nellie was in the middle of correcting and arguing with her co-worker, her employer walked into the office. He didn't like the tone of Nellie's voice and called her into his office. He told her that he had had many complaints from the others and that she would have to leave. He did not ask Nellie for an explanation of her actions, but told her that he was very pleased with the work she had done. However, getting along with the others was more important than having great skill ability.

1. Why did Nellie act the way she did?
2. What advice can you give Nellie for her next job?
3. Was Nellie's employer doing the right thing when he fired her?
4. What else could the employer have done?

REMEMBER THAT TIME IS IMPORTANT

Nancy is on her first office job. All women employees are given a 15 minute break each morning and afternoon. Nancy discovers that some girls remain out of the office 20 or 25 minutes. What would you suggest to Nancy?

It cannot be overstressed that time is important in business, not only to the firm itself, but to the employee. It is important that you appear promptly at the designated starting time. If you are allowed a break during your working hours, then it is imperative that you do not take what does not belong to you from the company by overstaying the allotted time.

If your quitting time is five o'clock, be prepared to work until five o'clock. An employee who is not willing to meet the hours demanded of him often finds that he has cheated not only the company, but also himself.

Alberta was hired as a typist-receptionist in a one-girl office. She decided to put the clock ahead some ten minutes each day to give herself a time bonus. When her boss discovered her hoax, he decided she was not to be trusted when he was absent from the office. So Alberta, instead of outwitting her boss, found herself looking for another job.

Another individual who feels he is gaining by taking excess time either at the beginning or end of the workday or during morning or afternoon breaks usually finds that he has not gained at all. Many times this shows up on his paycheck, and he wonders why Slow Joe who works steadily got a larger raise than he did.

Avoid following the lead of another employee who acts as if he were a bit "smarter" than others and takes extra breaks, quits early, or just plain loafs on the job. Many times such an employee is on his way out. Thus, it is a good practice to pick the best example in the business and follow his actions if you want to do a good job and get higher pay.

Listen carefully and watch carefully. Observe the best workers, but follow your supervisor's instructions.

In the problem above, Nancy should take the 15 minute break allowed her and no more. She will find that many employees break such rules, but such inattention to the rules is merely a way of cheating their employer and seldom goes unnoticed or without undesirable results.

KEEP IN MIND THAT RULES ARE IMPORTANT

Claudia, on a new job, feels that some of the rules are unnecessary and even silly. What probably is wrong with the way Claudia thinks?

On your first job, you will discover that business is more strict than most of the schools you have attended. You may have found, in school, a tongue-in-cheek attitude when certain rules were broken. This in all likelihood will be a thing of the past when you begin the job. Rules in business are made for a definite purpose and are expected to be kept.

Quinton went to the Southwest and obtained a job in the oil industry. He was told that a rule against smoking was strictly enforced. To Quinton, there was no reason why he could not smoke when all his work was out in the open. A few days later, he saw a container of gas, ignited by a spark, explode into the sky. Quinton was lucky in this case, as he saw why the rule was rigidly enforced. Other workers were not so lucky. One man has lost his right hand and another had lost an eye because they failed to follow the rules prescribed by the company.

Some firms warn employees that if a rule is broken they may be dismissed, even if it is their first offense. You may be endangering not only yourself but others. Thus, it is best that you learn the rules and abide by them.

In the problem above, Claudia will find that there is a definite reason why the rules are in force. Even when an employee has been with the company a long time, he may still not be an adequate judge as to whether a rule is necessary. It is best to comply with the rules even if you are a seasoned employee. After Claudia has been with the company awhile, she will be in a better position to see why the rules are necessary.

SUMMER JOBS

There are three jobs available for the summer and you will select one to apply for:

- A. Babysitter for Mrs. Smith's five year old boy, Joe, from 7:30 a.m. to 5 p.m., five days a week at \$20 per week.
- B. Bicycle delivery person for the friendly Corner Supermarket. The hours are 1 p.m. until 7 p.m. on Thursday, Friday, and Saturday. The pay is \$1.65 per hour.
- C. Clerk in the neighborhood variety store from 1 to 5 p.m., five days a week and all day Saturday. The pay is \$1.65 per hour. (The Saturday hours are 9 a.m. to 5 p.m. with an hour off for lunch.)

- 1. Which job will you apply for?
- 2. Why?
- 3. How many hours a week will you work?
- 4. What will you make each week?
- 5. What are the advantages of the job?
- 6. What are the disadvantages of the job?

JOB APPLICATION

Directions: Print or write plainly in ink.

Name _____
(Last) (First) (Middle)

Address _____
(Street) (City) (State) (Zip Code)

Date of Birth _____ Social Security No. _____
(Month) (Day) (Year)

Type of job applying for: _____

Education (Check education completed):

Elementary School ___ Junior High School ___ High School ___ College ___

List your work experience:

Employer _____ How long employed _____

Employer _____ How long employed _____

List two personal references (one may be a teacher):

Name _____ Address _____

Name _____ Address _____

What are your hobbies? _____

What school activities did you participate in? _____

What organizations do you belong to? _____

What was your favorite subject in school? _____

Why? _____

Have you ever been arrested other than for a minor traffic violation? _____

If so, what for? (Give violation and date) _____

Why are you interested in this job? _____

What salary do you expect to receive? _____

APPLICATION CHECK SHEET

- | | Yes | No |
|---------------------------------------------------------------------------------------------------|-------|-------|
| 1. Were the instructions followed? | _____ | _____ |
| 2. Was it printed or typewritten? | _____ | _____ |
| 3. Was ink used? | _____ | _____ |
| 4. Can you read it? | _____ | _____ |
| 5. Is the application completely filled in, with lines drawn where information is not applicable? | _____ | _____ |
| 6. Is the reference information complete so that those persons listed could be easily contacted? | _____ | _____ |
| 7. On the basis of the application alone, would you hire this person? | _____ | _____ |
| 8. Why or why not? (Write below.) | | |

JOB APPLICATION TEST

Babysitting Job

1. You are keeping Joe, a five year old boy, who has a cold. He is to take his medicine every three hours. When Mrs. Smith leaves for work, she tells you he had his medicine at 7 a.m. At what times during the day will you give Joe his medicine?
2. Your best friend finds out where you are working and wants to come over and visit. What do you tell him?
3. Your boyfriend (or girlfriend) calls while Joe is taking a nap, and wants to talk for awhile. What do you tell him (her)?
4. Mrs. Smith asked you to put something in the oven 1 hour and 45 minutes before she gets home. What time do you put it in the oven if she gets home at 5 p.m.?

Delivery Job

1. Mrs. Boyd, a new customer, asks to whom she should make out her check for the groceries you delivered. What do you tell her?
2. In front of Mrs. Lavender's home, you had an accident that couldn't be avoided. Your bicycle turned over and the groceries spilled. Everything was a bit soiled, but only a small jar of mustard was broken. What would you do? What would you tell Mrs. Lavender? What would you tell the grocer?
3. Mr. Gray's groceries amount to \$5.83 and he gives you \$6. How much change do you give him?
4. How much change would you give Mr. Rogers for his \$10 when his groceries cost \$8.13?

Clerk in Variety Store

(Sales tax is 3 cents on the dollar)

1. Mrs. Jones bought 3 spools of thread at 15¢ each and 1 zipper at 59¢. How much would she owe? How much is her tax? What is her total bill?
2. If Mrs. Smith bought \$2.53 worth of merchandise, how much would her tax be? What would her total bill be?
3. Mr. Dixon gave you \$5 in payment for merchandise of 67¢. How much change would you give him?
4. Mrs. Phillips bought 3 candles at 15¢ each, 2 packages wrapping paper at 39¢ each, and 1 roll of tape at 59¢. How much would she owe?

EVALUATION

1. Write a half-page report on the right attitude of an employee. Be sure to explain why attitude is important.
2. List eight things that the employer has the right to expect from his employees.
3. List five things that the employee has the right to expect from his employer.
4. Explain the general duties of an employee.
5. Why should a worker call an employer when he has to be absent?
6. Explain why an employee should notify his employer ahead of time before he quits a job.
7. Explain how a check should be handled after a worker has received it in payment for his services. (Endorsement, etc.)
8. What is expected of an applicant for a job during an interview?
9. What can the applicant expect from the employer during an interview?
10. Why is getting along with other employees as important as skills?
11. Before you decide upon a job what are some of the things you need to consider?

UNIT 6: CLERICAL CAREERS
(Suggested Time: Six Days)

Behavioral Objectives

Upon completion of this unit the student, on a written test with 60 percent accuracy, be able to:

1. Classify clerical jobs into the three types.
2. Identify five kinds of organizations or businesses that employ clerical workers.
3. Identify five basic job skills and knowledge needed by clerical workers.
4. Identify four specific job skills and knowledge needed for a clerical job.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Discuss the behavioral objectives.	
<ul style="list-style-type: none">. Explain the three classifications of clerical occupations: Computing Recording General	Handout #1
<ul style="list-style-type: none">. Discuss the kinds of organizations that might employ clerical workers. (Ask students for other examples.)	Handout #1
<ul style="list-style-type: none">. Have students identify and classify (into the three types) jobs on the OC Chart.	OC Chart
<ul style="list-style-type: none">. Instruct students to bring to class various types of business forms that a clerk might handle. These will be used as bulletin board materials. (Examples: checks, invoices, letters)	
<ul style="list-style-type: none">. Discuss basic job skills and knowledge needed for clerical worker. Point out that these are basic for all office occupations.	Handout #1 <u>Clerical Office Practice, Gregg,</u> pp. 38-40
<ul style="list-style-type: none">. Have students complete "Ability to Follow Directions."	Handout #2

INSTRUCTIONAL

- . Assign proofreading exercise "Name Checking."
(See Key for answers.)
- . Assign computing exercise.
- . Discuss specific job skills and knowledge necessary for a clerical worker.
- . Explain alphabetical and geographical filing.
- . Assign the filing exercise. (See Key for answers.)
- . Assign the telephone directory exercise.
- . Explain the proper use of the telephone.
- . Discuss high school courses offered for clerical training such as typing, filing, office machines, office procedures, basic math, basic grammar and punctuation, and business law.
- . Ask students to bring newspaper employment sections to class. Discuss financial returns for clerical occupations.
- . Discuss the activity on "Newspaper Employment Advertisements."
- . Inform the students of ways to secure information about job opportunities (for any job in the business clusters).
- . Have each student explore an occupation using Form A as a guide.
- . The teacher will work individually with each student.

ENRICHMENT

- . Assign the Personal Directory Exercise
- . Have students sort or file papers for the teacher.

RESOURCES

Handout #3

Handout #4

Handout #1

Handout #5

Handout #6

"The Voice of Your Business," Southwestern Bell Telephone Film

Perspective for Planning, Career Development, 8-12
Little Rock Public Schools

Handout #7

Form A

Handout #8

INSTRUCTIONAL

- . Provide "hands-on" experience for the students in operating the machines in the lab--ten key adding machine, printing calculator, duplicator (spirit, fluid, and copying), billing machines, and any other that may be available on loan.
- . Each machine should be demonstrated to the class by the teacher. The students should try out the machines by working simple practice problems.
- . Ask a salesman to bring the latest equipment to the classroom and demonstrate.
- . Discuss what each machine can do and for what purposes it is used.
- . Secure a speaker from a local company to discuss fringe benefits.

RESOURCES

Secure materials from Victor, Monroe, Burroughs, Olivetti, or any other company for bulletin board and practice materials.

Use any office machines test by Gregg or South-Western or the above companies will furnish practice materials.

Victor Adding Machine Company, or any of the companies listed above, will be glad to furnish sales representatives to demonstrate the equipment.

Form B

KEY - CLERICAL CAREERS UNIT

Handout #3 - Name Checking

The correct answers are: 3, 4, 10, 12, 13, 15, 16, 19, 22, 26, 27, 28, 35, 39

Handout #4 - Computing

1. \$68.00
2. \$75.65
3. \$65.60

Handout #5 - Alphabetical and Geographical Filing

Alphabetical: Bridges, Green, Hirschy, Marcum, Patton, Rush, Russell, Smith, Styers, Wiggins

Geographical: Alaska, Arkansas, California, Michigan, Missouri, Montana, Texas (Bryan), Texas (Paris), Virginia, Wyoming

Evaluation

1. T
2. T
3. T
4. T
5. F
6. T
7. T
8. Alaska, Anchorage
California, Alta
Texas, Bryan
Texas, Paris
9. Typewriting
Bookkeeping
Record Keeping
Business Law
General Business
Business English
10. Newspaper
Employment Office
11. Allen, James
Jones, Mark
Smith, James
Smith, John

CLERICAL OCCUPATIONS

The three classifications of clerical occupations and a description of each are as follows:

Computing - involves accurate calculations by arithmetic, applied mathematics, or statistics.

Recording - involves entering, transcribing or checking mathematical or verbal data in the performance of such tasks as recording transactions, posting entries in ledgers, checking receipts, expenditures, and production records, taking inventories of stock, typing, and completing forms.

General - involves filing, sorting, classifying, mechanically reproducing, routing, or delivering clerical records and related data.

General information regarding clerical occupations:

Kinds of organizations employing clerical workers - banks, insurance companies, real estate companies, construction firms, schools, hospitals, federal and state agencies, and professional people such as doctors and lawyers.

Basic job skills and knowledge - ability to read well and write plainly, follow instructions, spell, perform simple mathematical computations, use the telephone effectively, write figures accurately.

Specific job skills and knowledge - office machines operation, typing, record keeping, filing, occupation information.

Important personal qualities - cooperative, responsible, energetic, ambitious, imaginative and resourceful, dependable, neat and orderly, punctual, able to work under pressure, good general health, and able to use good common sense.

Sources of securing job information - Employment Security Division, newspapers, friends, local employment agencies, high school business education teachers and counselors, company personnel departments, civil service applications for federal agencies.

YOUR NAME _____

ABILITY TO FOLLOW DIRECTIONS

Read everything before doing anything. The object of this test is to point out that directions are meant to be followed. Students often find an assignment difficult NOT because they cannot do the work, but because they have not followed directions. And they have not followed directions because they did not read them carefully enough to fully understand them. Some of you may even skip reading this preliminary paragraph, because you do not think it to be of importance. This would not be wise. Some of you take longer to do this test, but if you are one of the first to finish, turn your paper over and wait patiently for the others to finish.

1. Put your last name in the space provided where it says "Your Name."
2. Draw a circle around your name.
3. Draw five small squares in the upper left-hand corner of this page.
4. Put an "X" in each square.
5. Draw a circle around each square.
6. Underline "Ability to Follow Directions."
7. Draw a circle around each word in direction number six.
8. Place an "X" in the lower left-hand corner of this sheet.
9. Draw a triangle around the "X" which you have just drawn.
10. On the reverse side of this paper, at the top right-hand corner, write 8950 and 9805.
11. Call out your first name before writing any more on this paper.
12. If you think you have followed all directions up to this point, call out, "I have."
13. Put your first name in the middle of the bottom of this page.
14. Now that you have read everything before doing anything, as you were instructed in the opening paragraph, do only sentences one and fourteen.

UNIT 6
Handout #3

NAME CHECKING

Directions: Write the letter C in the answer column at the right if the name in the second list is the same in every respect as the name in the first list; if the name in the second list is different from the name in the first list, write the letter W. Time: 6 minutes

First List	Second List	Answers
0. Utz & Dunn	Utz, Dunn & Co.	0. <u>W</u>
00. Market Basket	Market Basket	00. <u>C</u>
1. First Wisconsin Trust Co.	1st Wis. Trust Co.	1. _____
2. Goll and Frank	Goll & Frank	2. _____
3. Weinbrenner Shoe Co.	Weinbrenner Shoe Co.	3. _____
4. E. R. Godfrey	E. R. Godfrey	4. _____
5. H. Neidecken Supply Co.	Neidecken Supply Co.	5. _____
6. 1st Wisconsin Nat'l Bank	1st. Wis. Nat'l. Bank	6. _____
7. J. J. J. Jones	J. J. Jones	7. _____
8. American Appraisal Co.	American Appraisal	8. _____
9. M. & I. Bank	Marshall and Illsely Bank	9. _____
10. Royal Typewriter Co.	Royal Typewriter Co.	10. _____
11. E. & S. Tire Shop	K. & L. Tire Shop	11. _____
12. H. S. Geddes	H. S. Geddes	12. _____
13. Modern Soda Fountain Co.	Modern Soda Fountain Co.	13. _____
14. McKinley Lodge No. 307	McKinley Lodge 307	14. _____
15. Jell-Sope Products, Inc.	Jell-Sope Products, Inc.	15. _____
16. 598 Auer Ave.	598 Auer Ave.	16. _____
17. J. Sign Co.	J. T. Sign Co.	17. _____
18. 2459 Wisconsin St	2459 Wisconsin Ave.	18. _____
19. Hermine Eat Shop	Hermine Eat Shop	19. _____
20. George F. Russell, Inc.	George E. Russell, Inc.	20. _____
21. Telephone Broadway, 1537	Telephone Broadway, 1357	21. _____
22. Pyott Foundry Co.	Pyott Foundry Co.	22. _____
23. Trade Press Publishing Co.	Trade Press Publishing, Inc.	23. _____
24. Monarch Press, Inc.	Monarch Press Co.	24. _____
25. Monarch Press Co.	Monarch Press, Inc.	25. _____
26. Frank P. Pfannestiel	Frank P. Pfannestiel	26. _____
27. American Photo Co.	American Photo Co.	27. _____
28. J. B. Murchison	J. B. Murchison	28. _____
29. R. G. Kett Co.	R. G. Kett, Inc.	29. _____
30. Achtor Bros., Co., Inc.	Achtor Bros., Co., Inc.	30. _____
31. G. Pletz & Pletz	G. Pletz and Pletz	31. _____
32. Walker Musical Exchange	Walker's Musical Exchange	32. _____
33. Advance Express Co.	Advance Express	33. _____
34. 18,567 Grand Ave.	18,567 Wisconsin Ave.	34. _____
35. Fallis Bros.	Fallis Bros.	35. _____
36. Fox Co.	Fox & Co.	36. _____
37. 695 S. West St.	695 W. South St.	37. _____
38. Columbus Day	October 12th	38. _____
39. A. C. Arnold	A. C. Arnold	39. _____
40. Great Lake Co.	Great Lakes Corp.	40. _____

Fisher, Robert, Intensive Clerical and Civil Service Training, South-Western Publishing Company, Fourth Edition, p. 169.

COMPUTING

People who would be involved in the computing classification of clerical work are: timekeepers, adding machine operators, cost clerks, and tabulating machine operators.

Directions: Figure the gross pay for each of the employees of the OC Record-Disc Company presented below. (Use the bottom of this sheet for figuring.) After these problems are completed, check them on the adding machine when time is available.

A timekeeper who is engaged in the computing classification of clerical work might be presented with a series of problems similar to these:

1. Joe worked 40 hours at a rate of \$1.70 per hour. What was his gross pay?
2. Paul worked 40 hours at a rate of \$1.70 per hour (regular time) and he also worked 3 hours overtime. Paul's overtime is time and a half (1 1/2 times his regular rate of \$1.70 per hour). What is Paul's gross pay?
3. Mary worked 24 hours at \$1.60 per hour, then she got a raise of 10¢ per hour. Figure Mary's gross pay if she worked 24 hours at \$1.60 per hour and 16 hours at \$1.70 per hour.

UNIT 6
Handout #5

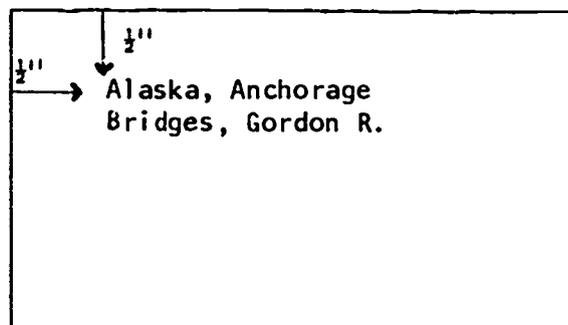
DIRECTIONS: The students will (1) list and then (2) arrange the following names in alphabetical order by last name on 3 X 5 filing cards. Teacher will supply cards (newsprint or 3 X 5 cards).

Gloria O. Wiggins
Nadine F. Marcum
Ernest L. Rush
Gordon R. Bridges
Phyllis K. Smith
Donald D. Styers
George E. Russell
May L. Hirschy
Daniel J. Patton
William H. Green

DIRECTIONS: The students will (1) list and then (2) arrange the following names in geographical order by state on 3 X 5 filing cards. Teacher will supply cards (newsprint or 3 X 5 cards).

Gloria O. Wiggins, Helena, Montana
Nadine F. Marcum, Alta, California
Ernest L. Rush, Toombs, Wyoming
Gordon R. Bridges, Anchorage, Alaska
Phyllis K. Smith, Lansing, Michigan
Donald D. Styers, Paris, Texas
George E. Russell, Scott, Missouri
May L. Hirschy, Alexandria, Virginia
Daniel J. Patton, Bryan, Texas
William H. Green, Benton, Arkansas

Below is an example of how names will be written (or typed) on 3 X 5 inch cards.



TELEPHONE DIRECTORY EXERCISE

DIRECTIONS: Use the telephone directory to look up the following and list your answers in the blanks provided.

1. List the name, address, and telephone number of an individual whose name begins with the letters C, S, and W.

C _____

S _____

W _____

2. Find the name of a lumber company in the city. List the name, address, and telephone number. _____

3. Find the name of a florist in the city. List the name, address, and telephone number. _____

4. Find the name of a hotel in the city. List the name, address, and telephone number. _____

5. Mr. John Edwards lives in Brooklyn, New York. His telephone number is 885-2607. His area code is 212. Indicate the sequence of numbers you would dial for:

a. Direct dial call _____

b. Collect call _____

c. Person to person call _____

6. What sequence of numbers would you dial to get information if you did not know Mr. Edwards' number? _____

NEWSPAPER EMPLOYMENT ADVERTISEMENTS

1. Select three occupations from the following list to research:
 - a. Clerk
 - b. Clerk-Typist
 - c. Receptionist
 - d. Typist
 - e. Stenographer-Secretary
 - f. Key Punch Operator
 - g. MTST Operator
 - h. Cashier
 - i. Switchboard Operator
 - j. Inventory Clerk
 - k. Payroll Clerk
 - l. Accounting Clerk
 - m. Bookkeeper
 - n. Receiving Clerk
 - o. Warehouse Clerk
2. Cut out advertisements in the employment section of a local newspaper requesting applicants for the three positions selected above.
3. Paste these advertisements at the top of a sheet of notebook paper.
4. For each position selected, write a description of:
 - a. The work involved
 - b. Working conditions
 - c. Hours of work
 - d. Abilities required
 - e. Earnings (taken from ad)
 - f. Education and training required
 - g. Advancement possibilities
5. Upon completion and checking of this "hands-on" activity, file this unit in your notebook as background information for the bookkeeping and accounting unit.

PERSONAL TELEPHONE DIRECTORY

Compile a personal directory by listing the names and telephone numbers of the following:

	NAME	NUMBER
1. Bank	_____	_____
2. Bowling Alley	_____	_____
3. Church	_____	_____
4. Dentist	_____	_____
5. Department Stores	_____	_____
	_____	_____
6. Doctor	_____	_____
7. Fire Department	_____	_____
8. Five Friends	_____	_____
	_____	_____
	_____	_____
	_____	_____
9. Minister	_____	_____
10. Police Department	_____	_____
11. Recreation Center	_____	_____
12. Restaurant	_____	_____
13. School	_____	_____
14. Skating Rink	_____	_____
15. Swimming Pool	_____	_____
16. Theater	_____	_____

EVALUATION

PART I

Directions: In the blank at the left of each statement, indicate whether the statement is true or false by writing the word "true" if the statement is true and the word "false" if the statement is false.

1. All clerical workers should have the ability to read well and to write legibly.
2. Clerical workers should be able to perform simple mathematical computations and write figures accurately.
3. All office workers should use proper telephone manners and habits.
4. All office workers should be familiar with the telephone directory and its special parts.
5. Clerical workers are found in a limited number of business organizations.
6. Clerical workers need a basic knowledge of office machine operations.
7. Typewriting is considered to be a basic office skill.

PART II

Directions: Follow the instructions given for each statement.

8. Index the following list of cities and states and arrange for geographical filing:
 - Bryan, Texas
 - Alta, California
 - Paris, Texas
 - Anchorage, Alaska
9. Identify courses offered in Business Education that would be helpful to a clerical worker:

<input type="checkbox"/> Typewriting	<input type="checkbox"/> Record Keeping
<input type="checkbox"/> Bookkeeping	<input type="checkbox"/> Business Law
<input type="checkbox"/> Gym	<input type="checkbox"/> General Business
<input type="checkbox"/> Civics	<input type="checkbox"/> Business English
10. Name at least two places where you can obtain job information.
11. Index the following list of names and arrange for alphabetical filing:
John Smith, James Smith, James Allen, Mark Jones.

UNIT 7: MARKETING AND DISTRIBUTION CAREERS
(Suggested Time: Four Days)

Behavioral Objectives

Upon completion of this unit:

1. The student will select an occupation from the marketing cluster and explore it using Form A as a guide.
2. The student will be able to identify four of the five areas which make up the marketing cluster.
3. The student will be able to identify three specific jobs in each of four areas of the marketing cluster.
4. The student will be able to identify the vocabulary words with 70 per cent accuracy.
5. The student will be able to identify four basic personality traits needed for any person engaged in selling.
6. The student will be able to complete a sales slip and a stock record card.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">• Define marketing: Marketing consists of those activities that take place in getting goods and services from the producer to the consumer.• Discuss vocabulary words.• Present the "Producer to Consumer" flow chart.• Present the five basic areas of marketing in which a person might be employed.• Discuss specific jobs from each of the five areas. (Ask students for examples of parents' occupations.)• Ask students to bring to class items illustrating some phase of marketing. Use these items to make a bulletin board. (Examples: price tag from clothing, sales slip, real estate advertisement from newspaper, etc.)	<p>Handout #1</p> <p>Transparency- Handout #2</p> <p>Transparency- Handout #3</p> <p>Transparency- Handout #3</p> <p><u>Exploratory Business</u> 5th Edition. pp. 5-27</p>

INSTRUCTIONAL

- . Ask a resource person to discuss the specific jobs available in each of the marketing areas within his firm. (Preferably this would be a person from a large business such as Penney's, Sears, Montgomery Ward)
- . Have students complete section of Form D relating to speaker.
- . Point out that the required education and training depends upon the type of marketing activity in which you intend to engage.
- . Discuss the basic skills needed for any person engaged in selling.
- . Assign "sales slip" exercise.
- . Discuss basic knowledge needed for any person employed in selling.
- . Go over additional knowledge needed for persons engaged in retail selling.
- . Assign "stock card" exercise.
- . Point out courses available on the high school level for the student interested in marketing as a career. (Distributive Education)
- . Remind students that in researching their occupation in the marketing field, they should consider working conditions, hours, financial returns, etc.
- . Inform the students of the particular resources available in your classroom for exploring their selected occupation.
- . The students will explore their selected occupations and complete Form A.
- . The teacher will help the students individually in researching their occupation.

ENRICHMENT

- . Have students do role playing activities to depict a salesperson as defined on the vocabulary sheet.

RESOURCES

Form D

Handout #1

Handout #4a

Handout #1

Handout #1

Handout #4b

Perspective for Planning,
Career Development, 8-12
Little Rock Public Schools

Form A

INSTRUCTIONAL

- . Supplementary material - "Introduction to Selling"
- . Trace the channels of distribution for a watch, a box of candy, and a dozen eggs.
- . The students may select a product and write an advertisement.
- . The students may interview a person engaged in a marketing activity.
- . Ask a Distributive Education Coordinator to talk to the class.
- . Use a resource person to discuss the duties of a buyer and a salesperson.

RESOURCES

Occupations and Careers,
Feingold and Swerdloff,
Webster Division, McGraw-
Hill Book Co., 1969,
pp 232-247

Form C

Form D

Vocabulary Words

1. Consumer - anyone who uses goods and services
2. Producer - one who grows, manufactures, or makes goods, or provides service
3. Marketing - activities that take place in getting goods and services from producer to consumer
4. Channel of distribution - the route or path a product takes on its way from the producer to the consumer
5. Buying - obtaining goods from producer or supplier for resale
6. Middleman - all persons or businesses that move goods from producers to the consumers
7. Retailer - a middleman who sells directly to ultimate consumers (final consumers)
8. Wholesaler - a middleman who buys goods in large quantities from producers and sells them in smaller quantities to retailers
9. Retail selling - sales made to the ultimate consumer (final users) of a product
10. Wholesale selling - sales made by a wholesaler to retailers
11. Salesperson - a person who is trained to sell goods or services
12. Warehousing - deals with the storage of goods
13. Industrial sales - one industry sells to another
14. Receiving and marking - processing of goods from time they enter store until they are ready for sale.
15. Selling cycle - the five steps in the selling process: (1) attract attention, (2) arouse interest, (3) create desire, (4) convince, and (5) obtain action

Basic skills needed for person engaged in selling: ability to follow directions, ability to perform simple mathematical computations, record keeping or accounting, use of telephone, social skills (including good grooming)

Basic knowledge needed in selling: communications ability, human and public relations, knowledge of customers' buying motives, knowledge of product, advertising

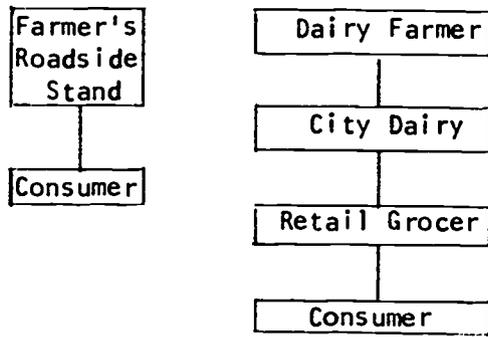
Additional knowledge needed for retail selling: credit and collections, receiving and marking merchandise, inventory and stock control

UNIT 7
Transparency-Handout #2

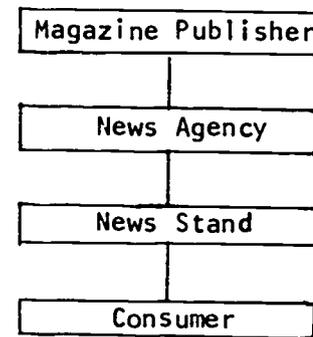
CHANNELS OF DISTRIBUTION
(Producer to Consumer Flow Chart)

1. PRODUCER → CONSUMER
 2. PRODUCER → RETAILER → CONSUMER
 3. PRODUCER → WHOLESALER → RETAILER → CONSUMER
-

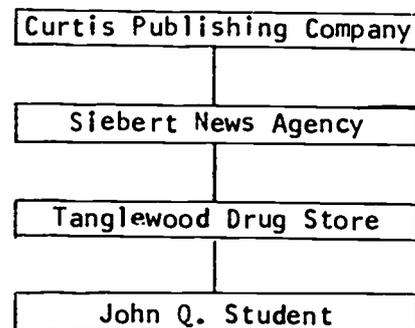
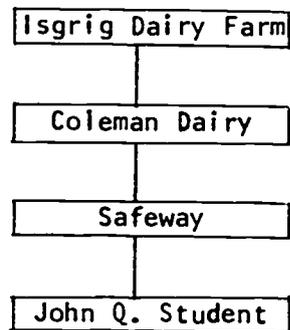
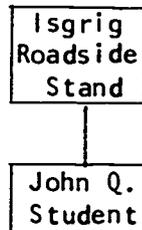
TRADE CHANNEL FOR MILK



TRADE CHANNELS FOR MAGAZINES



(FOR LITTLE ROCK AREA)



UNIT 7
Transparency-Handout #3

FIVE BASIC AREAS OF MARKETING

<u>AREA</u>	<u>JOBS</u>
MERCHANDISING	General Merchandising Manager Hardware Merchandising Women's Merchandising Manager Salesperson Comparison Shoppers Order Taker
SALES PROMOTION	Sales Promotion Manager Advertising Manager Display Manager Window Dressers Public Relations Manager Photographers
TRANSPORTATION AND STORAGE	Dock Men Truck Drivers Warehousemen Dispatchers
RECEIVING AND MARKING	Receiving Room Clerk Receiving Room Managers Markers Checkers of Merchandise
CONSUMER CREDIT	Credit Manager Credit Authorizer Credit Clerk Personal Collections Credit Interviewers Billers Accounts Receivable Clerks

EVALUATION

True-False

- 1. A wholesaler buys goods in large quantities from a producer and sells them in smaller quantities to retailers.
 - 2. A refrigerator passes through one or more middlemen before it reaches the consumer.
 - 3. The longest trade channel is from producer to consumer.
 - 4. The personal appearance of a salesperson is unimportant.
 - 5. A lack of knowledge about merchandise on the part of the salesperson might cause a sale to be lost.
 - 6. All customers should be handled in the same manner by the salesperson.
 - 7. Middlemen are final users of goods.
 - 8. The producer manufactures usable goods.
 - 9. A sales slip indicates the items bought and the cash price paid.
 - 10. A consumer need not learn about goods since he should rely on what the salesperson tells him.
11. Select the areas which make up the marketing cluster.
- a. transportation and storage
 - b. consumer credit
 - c. delivery services
 - d. merchandising
 - e. technical distribution
 - f. sales promotion
 - g. receiving and marking
 - h. production services
 - i. consumer administration
12. Select four basic skills needed for any person engaged in selling.
- a. Ability to follow directions
 - b. Ability to set up unit control records
 - c. Ability to perform simple mathematical computations
 - d. Ability to write credit letters
 - e. Ability to typewrite
 - f. Ability to use a dictaphone
 - g. Ability to use the telephone for selling purposes
 - h. Ability to keep records

UNIT 8: CAREERS RELATED TO TOURISM
(Suggested Time: Three Days)

Behavioral Objectives

Upon completion of this unit, the student will:

1. Be able to write a paragraph discussing the expanding tourism industry.
2. Be able to list at least 10 jobs associated with the tourism industry.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none"> . Make preassignment: students will list job titles representing tourism (suggest from their own experience) . The teacher will prepare a bulletin board entitled "Tourism Occupations" to use as a teaching resource. Job titles will be placed on the bulletin board. . The student will prepare and place on the bulletin board his job titles. (Use magic marker, slips of paper, and pins) . Go over behavioral objectives. . Handout and discuss "Expanding Tourism" . See game-playing activity 	<p>Bulletin board</p> <p>Magic marker, small slips of paper, pins</p> <p>Handout #1</p> <p>Handout #2</p>
<p><u>ENRICHMENT</u></p> <ul style="list-style-type: none"> . The students will interview someone in a tourism occupation and report on Form C . Use resource person from Hotels and Motels Management Association to speak on the jobs available in that field. 	<p>Form C</p>

EVALUATION

1. Write a paragraph discussing the expanding tourism industry.
2. List at least 10 jobs associated with the tourism industry.

EXPANDING TOURISM

As income levels rise, Americans have a higher per capita income, increased leisure time, longer life, and earlier retirement. To fill this extra time, Americans are turning to recreation and travel.

The lodging industry must provide sleeping rooms and dining and recreation facilities thus demanding employment of many specialized personnel and a large force of supervisors and managers.

One of the fastest growing leisure-time activities is camping. The camping industry has grown 500 per cent in the past ten years. Nearly 50 million Americans go camping each year. To provide needed services for those who camp, there will be an increased demand for workers in many areas. Job opportunities will be available in food service establishments, concession stands, souvenir shops, service stations, laundry and dry cleaning shops, and other related businesses.

As the demand rises, more and more people are setting up overnight campgrounds along the interstate freeways and state roads, particularly near national and state parks, lakes, rivers, and other points of interest.

The total bill for travel of Americans is over 38 billion dollars annually, including transportation, food, lodging, and vacation expenses. Six billion dollars is spent for travel abroad. Leisure-time spending totals more than 89 billion dollars annually. More than 85 per cent who travel go by automobile.

Some available tourism jobs are:

Lodging Industry

Hotel and Motel Managers and Owners
Hotel Clerks
Hotel Maintenance Supervisors
Hotel Housekeepers
Innkeepers
Teachers, Directors, Instructors
Maids

Camping and Related

Campground Owners and Operators
Camper and Trailer Sales
Trailer Park Operators and Owners
Forest Rangers
Guides (tours and excursions)
Drivers for Tours (bus, jeep, mules)
Amusement Park Owners and Operators
Souvenir Shop Owners

IN ARKANSAS, TOURISM RANKS AS THE THIRD HIGHEST INCOME PRODUCING INDUSTRY.

UNIT 8
Handout #2

TOURISM GAME

Divide class into groups with one student in each group acting as the recorder. Groups will be timed for one minute. Have students pool their ideas and list specific jobs available in certain areas of the tourism industry.

Ask each group to read their list, and the group with the most jobs listed wins the point for that round. (Suggested number of rounds, five or more.)

Suggested areas are:

1. Lodging industry
2. Restaurant industry
3. Camping
4. Water sports and recreation
5. Entertainment industry

NOTE: This game can be used for review in other units.

UNIT 9: SECRETARIAL CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

Upon completion of this unit the student will:

1. Have a basic understanding of the occupations available in the secretarial career cluster.
2. Have had experiences that will help him increase his understanding of the requirements (manners, personal qualities, skills, training, knowledge, and education) needed to enter the secretarial occupations.
3. Evaluate his own manners and personal qualities in comparison to those of a good secretary.
4. Demonstrate the work and the various duties performed by workers in this field by role play and/or skits and other hands-on activities.
5. Explore thoroughly at least one job in the secretarial occupations.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Explain objectives to students. Talk about secretarial occupations. Have students pick out secretarial jobs on chart.. Discuss general information about secretarial occupations and assign activities:<ul style="list-style-type: none">"General Information about Secretarial Occupations""Proofreading Exercise""Qualities of a Good Secretary""Composing a Letter""Letterhead Stationery""Shorthand Activity""Check Your Business Manners". Show film: "How to Lose Your Best Customer Without Trying."	<p>List of secretarial occupations in notebook</p> <p>Class organization chart, OC Chart</p> <p>Handouts #1 and #2 Handout #3 Handout #4 Handout #5 Handout #6 Handout #7 Handout #8</p> <p>Stanley Sound Co.</p>

INSTRUCTIONAL

- . Discuss or show film: "The Voice of Your Business" (12 minutes). Allow students to appraise their own telephone habits. (Last page of booklet.)
- . Instruct students to explore at least one job from the secretarial occupations and complete Form A for notebook.
- . Evaluation

ENRICHMENT

- . Booklets
- . Employment Outlook
- . Choose one of the following and compose a skit or role play situation. Place in notebook after outline on "Secretarial Occupations."
 1. Mrs. White, secretary, taking dictation from her boss, Vice-President of the O. C. Record and Tape Company
 2. A clerk-typist typing a three-page report
 3. A receptionist receiving a caller who desires to have an interview with the President
 4. A stenographer transcribing a letter

RESOURCES

Booklet "The Voice of Your Business," Bell Telephone Co. (See "Appraise Your Telephone Habits" Checklist)

Form A

You as a Secretary and The Successful Secretary.
Royal Typewriter Co. Inc.,
150 New Park Ave., Hartford, Conn. 06106

OB Guide for Young Workers, 1969-70 Edition,
U.S. Department of Labor

KEY TO HANDOUT 8 - CHECK YOUR BUSINESS MANNERS

The following numbered questions should be marked true:

1, 6, 7, 9, 10, 16, 17, 19, 20

KEY - EVALUATION

I. Receptionist
Stenographer
Typist
Legal Secretary
Technical Stenographer
Court Reporter
Switchboard Operator

II. All six should be checked

III. 1 - F
2 - T
3 - T
4 - T
5 - T
6 - T
7 - T
8 - F
9 - F
10 - F
11 - T
12 - T

IV. 1. Good voice tone, answering promptly
2. Manufacturing firms, banks, insurance agencies, hospitals
3. Paid vacations, sick leave, air conditioned offices
4. Shorthand
5. Typewriting
6. Clerical Office Practice, Business Law, General Business

GENERAL INFORMATION ABOUT SECRETARIAL OCCUPATIONS

Receptionist - Receives clients or customers coming into establishment, ascertains their wants, and directs them accordingly; obtains caller's name and arranges for him to see person called upon. Directs caller to his destination and records name, time of call, nature of business, and person called upon.

Secretary - Schedules appointments, gives information to callers, takes dictation, and otherwise relieves officials of clerical work and minor administrative and business detail; reads and routes incoming mail; locates and attaches appropriate file to correspondence to be answered by employer; takes dictation in shorthand or on stenotype machine and transcribes notes on typewriter, or transcribes from voice recordings; composes and types routine correspondence; files correspondence and other records; answers telephone and gives information to callers or routes call to appropriate official and places outgoing calls; schedules appointments for employer; greets visitors, ascertains nature of business, and conducts visitors to employer or appropriate person.

Classification - Private secretaries for key executives or professional persons; Secretary-Stenographers or Junior Secretary; and Executive Secretaries--acts as administrative assistants to top executives.

Stenographer - Takes dictation (in shorthand) of correspondence, reports, and other matter, and transcribes dictated material, using typewriter. Performs variety of clerical duties, except when working in stenographic pool. May transcribe material from sound recordings.

Classification - Junior or Senior, Technical, Public, Court Reporters. Technical stenographers include: law, medicine, science, and engineering.

Source: General Office Practice, Third Edition, Archer-Brecker, Frakes and Stewart

GENERAL INFORMATION ABOUT SECRETARIAL OCCUPATIONS

Skills and Knowledge

Typewriting	Strong background in English
Shorthand	and communications
Filing	Good at notetaking
Record keeping and accounting	Good speller
General office knowledge (management)	Good with figures
Office machines operation	Legible handwriting

Training

High School - essential (major in business education subjects)
Technical or Business College
Two years of college for some secretarial positions

Working Conditions

Air-conditioned office
Paid vacations
Sick leave
Salary - Little Rock average around \$400, some areas \$600 per month

Kinds of Businesses

Manufacturing firms	Schools
Government agencies	Colleges
Insurance companies	Private offices
Banks	Professional offices (lawyers,
Hospitals	doctors, dentists, etc.)

Important Personal Qualities

Cooperative
Good judgment
Drive and ambition
Grow power
Imaginative and resourceful
Able to work under pressure
Dependable
Neat and orderly
Punctual
Good general health

UNIT 9
Handout #3

PROOFREADING EXERCISE

Circle all errors in the letter. Place the number of errors you find in the upper right hand corner below your name. Let your teacher check for approval.

February 24, 19__

Miss Peg MacMillan
4137 East Saginaw Way
Hartford, Conneticut06101

Dear Miss MacMillan

We are proud to anounce that continued growth inthe volumn of our business has made necessary for us to change to a new location. Our present building at 1410 West Maple is just to short on space to enable us to provide you with the ser ices you have come to espect.

Our intire staff is sure youwill find us able to serve your even better with our ijproved line of merchandize. We will still be the only dealer for National auto Parts in this imediate area.

All of us have bee working late these passed two weeks in order to be repaired for opening day. There willbe special gifts for everyone. We hope it will be conveient for you to stop by and join inthe fun.

Cordially Yours

Robert Swanbeck,
General Manager

j1

QUALITIES OF A GOOD SECRETARY

1. TRUSTWORTHINESS - ability to keep information confidential.
2. INITIATIVE - to act on own responsibility when necessary, and to do things without being told.
3. ACCURACY AND SPEED - in taking and transcribing dictation, and skill in producing attractive work.
4. KNOWLEDGE OF ENGLISH, PUNCTUATION, AND SPELLING - This is the quality which businessmen most often find lacking.
5. COURTESY AND TACT - in dealing with others, both customers and other office workers. These qualities are especially important in interviewing customers and answering the telephone.
6. GOOD HEALTH AND ALERTNESS - as a result of proper exercise and sleep; on the job and wide awake everyday.
7. A BROAD FOUNDATION - which will enable the secretary to become increasingly valuable as time goes by. This explains why a general education, as well as mechanical training, is valuable.
8. A CHEERFUL DISPOSITION - which creates a pleasant office atmosphere. A ready smile, a spirit of harmony--no snobbishness.
9. PROMPTNESS - in arriving at work; willingness to work overtime if necessary.
10. GOOD TASTE IN DRESS - presenting an appearance which is a credit to the office. Simplicity and neatness--no frills.
11. A GOOD MEMORY - ability to act as an "information bureau" when facts are needed; to relieve the employer of details so that he can concentrate on major plans and decisions. Ability to recognize the names and faces of customers.
12. ORDERLINESS - in office routine, ability to find letters and papers quickly when they are needed.

COMPOSING A LETTER

Your boss, Mr. Joe Watters, Vice President of OC Record Company, asked you to write a letter requesting reservations for him in Omaha, Nebraska, during a convention. Before writing the letter you took the following notes:

Mr. W. Will stay three nights
2-3/4/5
Towers Hotel, Omaha
Communications Assn. Conv.
Single room
Confirm res. by mail

Write the letter, correcting all spelling and punctuation errors and have the teacher approve it. If machines are available, type the letter on letterhead stationery (Handout #6). Address an envelope and place it on the back of your letter.

UNIT 9
Handout #6

THE O - C RECORD - TAPE COMPANY

Lee Avenue at Pine Street Little Rock, Arkansas 72205 501-664-7700

Joe Watters, Vice-President

January 18, 19__

Towers Hotel
Post Office Box 1234
Omaha, Nebraska 72134

Gentlemen:

Sincerely,

Joe Watters, Vice-President

gw

(Your letter should be in a form similar to this when you complete it.)

SHORTHAND ACTIVITY

The main thing you should remember about shorthand is that you write only what you hear and that sounds have symbols. In the following words, you do not pronounce all the letters in the words. Write the sounds you hear in the space provided.

_____ day	_____ name	_____ steam
_____ save	_____ snow	_____ dough
_____ tea	_____ team	_____ know
_____ say	_____ stay	_____ scene

The symbol for "a" is *O* a big circle.
The symbol for "e" is *o* a small circle.
The symbol for "s" is *ʹ* like a comma.

Write the symbols a few times.

a _____ e _____ s _____

You put symbols together to form words just the way you put letters together to form words. For example, to write the word "see" you put together the symbol for s and the symbol for e.

s ʹ e o see ʹ

Before you write the words below using the symbols you have learned, write the sounds you actually hear.

Say _____ *d* _____

See _____ *ʹ* _____

Sees _____ *ʹ* _____

The symbol for "f" is *ʹ* Write f a few times. _____

The symbol for "v" is *ʹ* Write v a few times. _____

Write the sounds you hear, then write the symbols for the following words:

Face _____ *d* _____

Safe _____ *g* _____

Ease _____ *ʹ* _____

Vase _____ *d* _____

CHECK YOUR BUSINESS MANNERS

Good business manners must be practiced by employees who want to get ahead. Analyze your business manners by marking a T in the blanks before statements which you believe are true and an 0 for statements which you feel are false.

- 1. One should respect the feelings of others.
- 2. One should tell others of another person's mistakes.
- 3. One should become skilled in being sarcastic.
- 4. One should often make "wisecracks" to impress the boss.
- 5. One should never be friendly to strangers.
- 6. One should make strangers feel at home.
- 7. One should develop the habit of saying "Thanks," "Pardon me," "Excuse me," "Yes sir," "I'm sorry, ma'am," and similar expressions.
- 8. One should often impress others with one's intelligence and skill.
- 9. One should be a good listener.
- 10. One should be calm in times of stress when things go wrong.
- 11. One should never admit to an honest mistake.
- 12. One should be critical of the boss in the presence of customers.
- 13. One should develop skill in arguing.
- 14. One should often "straighten out" the boss to keep him well informed.
- 15. One should treat the boss and older employees equally.
- 16. One should "hear a person through" before making suggestions.
- 17. One should remain standing when introduced to the boss who is seated, and only be seated when invited.
- 18. Customers like to be shown that they are wrong.
- 19. One should recognize and compliment good work of others.
- 20. Good business manners can become a part of anyone who tries to develop them.

Source: The Interstate Publishers, Danville, Illinois

EVALUATION

- I. IDENTIFY FROM THE FOLLOWING LIST JOBS THAT ARE IN THE SECRETARIAL CLUSTER BY PLACING AN "S" IN THE BLANK BESIDE THE JOB.

Receptionist
 Stenographer
 Keypunch Operator
 Control Clerk
 Typist
 Legal Secretary
 Bookkeeper
 Technical Stenographer
 Court Reporter
 Switchboard Operator

- II. PLACE A CHECK IN THE BLANK BESIDE DESIRABLE PERSONAL QUALITIES OF A SECRETARY.

Good Health
 Courtesy and Tact
 Orderliness
 Initiative
 Concentration
 Punctuality

- III. PLACE A "T" OR AN "F" IN THE BLANK BESIDE THE FOLLOWING STATEMENTS TO INDICATE WHETHER YOU THINK THE STATEMENT IS TRUE OR FALSE.

1. Accuracy and speed of dictation are the most important skills a boss expects. It is not necessary to produce attractive work.
 2. A good memory is an asset to a secretary.
 3. At least a high school education is essential for a job in the Secretarial Cluster.
 4. In shorthand, you write only what you hear.

- _____ 5. If you make an error, you should admit it rather than blame it on someone else.
- _____ 6. Executive secretaries act as administrative assistants to top executives.
- _____ 7. A secretary relieves officials of minor administrative and business detail.
- _____ 8. You can expect to be a top-notch secretary if you make at least "C's" in English.
- _____ 9. The ability to spell is not important in the job of typist.
- _____ 10. If your office hours are from 8 until 5, it is acceptable for you to arrive at 8:30 if you stay until 5:30.
- _____ 11. Legible handwriting is a must for a receptionist.
- _____ 12. A smile will always bring out a pleasant tone on the telephone.

IV. ANSWER THE FOLLOWING BY WRITING IN THE SPACE PROVIDED:

1. List two desirable telephone habits.
2. List four kinds of businesses that employ workers in the secretarial cluster.
3. What are some of the usual working conditions and fringe benefits of jobs in this cluster? Name at least three.
4. What skill should a stenographer and a secretary have that is not required of a receptionist?
5. What is regarded as the fundamental skill of most office jobs?
6. Name at least three specific courses offered in Business Education in the Little Rock High Schools which would be helpful for any student who plans to go into a secretarial job.
7. Discuss the requirements of the job you chose to explore. Be specific as to the courses needed and the level of skill required.

UNIT 10: BOOKKEEPING-ACCOUNTING CAREERS
(Suggested Time: Four Days)

Behavioral Objectives

Upon completion of this unit, the student will:

1. Select and explore an occupation from the bookkeeping-accounting cluster using Form A as a guide.
2. Discuss the need for bookkeeping and accounting (record keeping).
3. Be able to list five specific job titles from the bookkeeping-accounting cluster.
4. Be able to list three personal qualifications needed to succeed in a bookkeeping-accounting occupation.
5. On a written test, be able to identify essential skills and knowledge for bookkeeping-accounting jobs.
6. On a written test, discuss the job he has chosen to explore.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Go over objectives with students.. Have the students list the following (allow ten minutes):<ul style="list-style-type: none">What he ownsHow much he owesHis expenses (bus fare, lunch, etc.)Whom he owes. Tell the students what each of the above are called in accounting terms.. Discuss "What Bookkeeping Is.". Have students look at the OC Record-Tape Company Chart and select occupations that fit into this cluster.. Present other specific job titles (ask students for examples of parents' occupations).. Ask students for examples of businesses that might employ persons in this field.	<p>Handout #1</p> <p>Handout #1</p> <p>OC Chart in "Orientation to Business Education Laboratory" Unit</p> <p>Transparency #1</p> <p>Handout #1</p>

INSTRUCTIONAL

- . Discuss personal qualifications necessary for a job in the bookkeeping-accounting cluster.
- . Discuss essential skills and knowledge.
- . Have students do cash record exercise (suggested homework).
- . Explain the use of a checking account for personal record keeping.
- . Have students complete a deposit slip.
- . Have students write a check and complete the stub.
- . Have students do personal budget activity.
- . Discuss courses needed to prepare for bookkeeping-accounting careers; such as, typing, bookkeeping, commercial law, office practice, and business math.
- . Remind students that as they explore, they should pay particular attention to training, where to get it, and jobs available.
- . Tell students of sources of job information in your classroom.
- . Instruct the students to select and explore an occupation in the bookkeeping-accounting fields.
- . The teacher will work individually with the students.

ENRICHMENT:

- . Use a resource speaker to talk about his job in the bookkeeping-accounting field (thirty minutes).
- . Have students complete notebook section.
- . Have students interview a person in the particular occupation they have chosen to explore.

RESOURCES

Handout #1
Exploratory Business
McGraw-Hill, p. 33.

Handout #1

Handout #2
Clerical Record Keeping,
South-Western, p. 163

Handout #3

Deposit slips and
checks furnished by
local bank

Handouts #4 and #5

Perspective for
Planning, Career
Development 8-12
Little Rock Public Schools

Occupational Outlook
Handbook

DOT

OB Guide for Young
Workers

Form A

Form D

Form C

INSTRUCTIONAL

- The students may keep a list of personal expenditures for one week.
- Show the filmstrip "So You Want to be a Bank Teller."
- Use a resource person to demonstrate adding machines, calculators, etc., to class.
- If machines are available, give students practice problems to be done on the machines.
- Have two students engage in role playing. Hold class discussion on attitudes, personal responsibility, etc., as illustrated in role playing activity.
- Illustrate manual data processing using pegboard system for writing checks.

RESOURCES

Worthen Bank

Handout #6

Handout #7

Shaw-Walker Accounting Board

WHAT BOOKKEEPING IS

The systematic recording of the financial operations of a business or of an individual is called bookkeeping. Bookkeeping records aid a business or an individual in planning for the future. Bookkeeping records are also needed for tax purposes and for government reports.

Bookkeeping records deal with such business operations as:

1. Purchasing and selling goods and services on credit.
2. Receiving and paying cash for goods and services.
3. Determining profits or losses that result from the operations of a business.
4. Determining the financial condition of the business.

The person who records the financial operations of a business in a systematic manner is called a bookkeeper. The person who plans, summarizes and analyzes bookkeeping records is called an accountant. In some businesses, the work of the bookkeeper and the accountant is done by the same person.*

Bookkeeping-Accounting Terms:

1. Assets - What a person owns
2. Liabilities - How much he owes
3. Expenses - Such as rent, light, water, employees' salaries
4. Creditors - The people to whom he owes money

Businesses that Employ Persons in Bookkeeping-Accounting: banking, government, insurance, retail stores, industry, and professionals such as doctors, lawyers, dentists, and real estate firms.

Personal Qualifications Necessary for a Job in the Cluster: dependability, efficiency, initiative, cooperation.

Essential Skills and Knowledge: accurate arithmetic, legible arithmetic, knowledge of terms, ability to use at least the 10-key adding-listing machine and the calculator (old, rotary; new, electronic).

*Basic Bookkeeping and Accounting, Boynton, Carlson, Forkner, Swanson, South-Western Publishing Company, 1968, p.3.

UNIT 10
Transparency #1

ACCOUNTING AND COMPUTING OCCUPATIONS

Timekeeper

Insurance Clerk

Bookkeeper

Payroll Clerk

Purchasing Agent

Certified Public Accountant

Government Accountant

Tax Accountant

Cost Account Accountant

Bank Teller

Bookkeeping Machine Operator

Billing Clerk

Accounts Receivable Clerk

Accounts Payable Clerk

Credit Clerk

Actuary

Auditor

UNIT 10
Handout #2

Directions: The student is to record payments and receipts, total each column, subtract payment from receipts, then record the new balance (balance of cash) in the receipts column. The computations will be performed first by hand, then by machine.

- Record the following receipts and payments made during the week beginning Monday, October 2.

- October 2 - Received an allowance of \$7.00 for the week
- October 2 - Paid 50¢ for carfare
- October 3 - Paid 60¢ for lunch, 55¢ for school supplies, earned \$3.50 for babysitting
- October 4 - Paid 35¢ for class dues, 30¢ for ice cream
- October 5 - Paid 65¢ for lunch, 20¢ for school supplies, earned \$3.00 for babysitting
- October 6 - Paid 50¢ for carfare, 60¢ for a ticket to the school dance, 10¢ for a newspaper, put \$2.00 in the school bank
- October 7 - Paid 85¢ for a movie, 20¢ for candy

- Find the new balance and record it in the receipts column.

CASH RECORD				
	DATE	EXPLANATION	RECEIVED	PAYMENTS
	19__			
	Oct.			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				

Key to Handout #2

CASH RECORD					
DATE		EXPLANATION	RECEIVED		PAYMENTS
19	Oct.				
1	2	Allowance	7	00	
2	2	Carfare			50
3	3	Lunch			60
4	3	School Supplies			55
5	3	Babysitting earnings	3	50	
6	4	Class dues			35
7	4	Ice cream			30
8	5	Lunch			65
9	5	School supplies			20
10	5	Babysitting earnings	3	00	
11	6	Carfare			50
12	6	Ticket to school dance			60
13	6	Newspaper			10
14	6	Deposit in school bank			2 00
15	7	Movie			85
16	7	Candy			20
17			13	50	7 40
18	7	Balance of Cash	6	10	
19					
20					
21					

UNIT 10
Handout #3

1. You have a checking account with Worthen Bank. On December 15, your account balance is \$101.01. On that date you deposit the following:

Cash: \$23.10

Checks: $\frac{81-7}{820}$ 13.20

$\frac{81-11}{820}$ 15.60

$\frac{81-7}{820}$ 75.14

2. Complete a deposit slip using the above information.
3. After making the deposit, what is your new balance? _____
4. On December 15, you write a check for \$27.03 to The Record Shop.
Complete the stub and write the check.
5. After writing the check for \$27.03, what is your account balance? _____
6. Your service charge for December is \$2.05. What is the balance of your account after deducting the service charge? _____

UNIT 10
Handout #4

1. SAVINGS (including savings accounts in banks and other similar institutions, government bonds, life insurance premiums, and principal payments on mortgage on home).
2. FOOD (including food eaten at home, meals eaten away from home, milk and dairy products, beverages, candy, and bakery goods).
3. CLOTHING (including clothing for all the family, dry cleaning, sewing appliances, and shoe repairs).
4. HOUSEHOLD (including rent, interest on mortgage, taxes, fire insurance, gas and electricity, coal or fuel oil, telephone, water, household furnishings, household supplies, and painting and repairs).
5. TRANSPORTATION (including payments on automobile, automobile upkeep and operation, fares for public transportation, and auto and drivers' licenses).
6. HEALTH AND PERSONAL CARE (including medical and dental expenses, drugs, eyeglasses, hospital and nursing expenses, accident and health insurance, barber and beauty shop, toilet articles, and children's allowances).
7. RECREATION AND EDUCATION (including books, magazines, newspapers, theaters, movies, concerts, vacations, school expenses, hobbies, radio and TV, musical instruments, and club dues).
8. GIFTS AND CONTRIBUTIONS (including church, Community Chest or United Appeal, charitable organizations, and personal gifts).

PERSONAL BUDGET

1. The student will refer to the activity "Newspaper Employment Advertisements" for the wages paid for each job investigated in the Clerical Unit.
2. The student will prepare a personal monthly budget for the employee of each job selected in the Clerical Unit. Each employee is considered the head of a household with an invalid brother and elderly mother, both of whom are unable to work.

The following form will be used:

Name:
Monthly Budget:
Date:

INCOME		EXPENDITURES		
Employees Income		Rent		
- Federal Income Tax		Gas		
- Social Security Tax		Electric		
		Water		
		Telephone		
Net Income		Food		
		Clothing		
		Transportation		
		Medical & Personal Care		
		Recreation & Education		
		Gifts & Contributions		
		Savings		

3. The student will compare the three budgets to determine in which areas the higher income worker could spend more money than the lower salaried employee.

PRACTICE PROBLEMS FOR ADDING MACHINE

Directions: Using the machines, do the following problems in the proper sequence. You may check the Key to be sure your answer is correct.

$$\begin{array}{r} 1. \quad 3 \\ \quad 8 \\ \quad 6 \\ \quad 7 \\ \quad 9 \\ \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 37 \\ \quad 48 \\ \quad 83 \\ \quad 24 \\ \quad 76 \\ \quad 40 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 425 \\ \quad 640 \\ \quad 817 \\ \quad 63 \\ \quad 239 \\ \quad 412 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 1,000 \\ \quad 2,761 \\ \quad 4,322 \\ \quad 6,789 \\ \quad 3,760 \\ \quad 1,170 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 97 \\ \quad - 43 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 234 \\ \quad - 111 \\ \hline \end{array}$$

$$\begin{array}{r} 7. \quad 6,784 \\ \quad - 3,221 \\ \hline \end{array}$$

$$\begin{array}{r} 8. \quad 43 \\ \quad \times 11 \\ \hline \end{array}$$

$$\begin{array}{r} 9. \quad 761 \\ \quad \times 221 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \quad 481 \\ \quad \times 202 \\ \hline \end{array}$$

KEY

1. 37

2. 308

3. 2,596

4. 19,802

5. 54

6. 123

7. 3,563

8. 473

9. 168,181

10. 97,162

UNIT 10
Handout #7

Two girls who attended high school together meet on the street.

JANE: Hi Mary! How are you doing?

MARY: Oh, fine I guess.

JANE: You guess? What's the matter?

MARY: Oh, it's my job. I like the work okay, but it's those crummy people I work with.

JANE: What's wrong with the people you work with?

MARY: Well, they expect me to be right one hundred percent of the time.

JANE: What do you do?

MARY: I'm a payroll clerk.

JANE: Ummm.

MARY: See, the other day I made a little mistake in Mr. Jones' paycheck.

JANE: Really, how little?

MARY: I paid him \$10 less than he earned that week and deducted \$10 more on withholding taxes than I was supposed to.

JANE: Boy! I don't blame Mr. Jones for being upset, but anyone can make a mistake.

MARY: Yeah, and two weeks ago I made a \$30 mistake on Mrs. Washington's check.

JANE: Mary Washington? I know her. She lives right down the street from me.

MARY: UGH! I don't think she earns \$110 per week. Besides, she glares at me all the time when I'm talking to that cute Bill Walter. You should see Bill, he's the new guy at our office and is he neat.

EVALUATION: BOOKKEEPING AND ACCOUNTING

Match the following:

- | | |
|-----------------------------------|----------------|
| ___ 1. What a person owns | a. Debtors |
| ___ 2. How much a person owes | b. Expenses |
| ___ 3. Rent, groceries, utilities | c. Liabilities |
| ___ 4. Whom a person owes | d. Assets |
| | e. Creditor |

True or False

5. ___ The systematic recording of the financial operations of a business or individual is called bookkeeping.
6. ___ Bookkeeping records aid a business or an individual in planning for the future.
7. ___ An essential skill for a bookkeeping worker is the ability to use a ten key add-listing machine.
8. ___ The amount of your earnings is found by subtracting your expenses from your income.
9. Name personal qualities necessary for a job in the Bookkeeping-Accounting Cluster.
10. Identify specific job titles from the Bookkeeping-Accounting Cluster:

Secretary	Bank Teller
Billing Clerk	Key Punch Operator
Bookkeeper	Payroll Clerk
Insurance Clerk	Clerical Worker
Stenographer	Salesman

Match the following:

- | | |
|------------------------|------------------------------------------------------|
| ___ 11. Check | a. Fee charged for services rendered. |
| ___ 12. Deposit slip | b. Paper showing amount deposited. |
| ___ 13. Service charge | c. Instructions to pay money from a certain account. |
| ___ 14. Stub | d. Checkbook record of check written |
15. Write a paragraph describing the job you have chosen to explore from the Bookkeeping-Accounting Cluster. Include in the paragraph the skill, training, and education requirements.

UNIT 11: DATA PROCESSING CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

Upon completion of this unit, the student will:

1. Select and explore an occupation from the Automated Data Processing Cluster using Form A as a guide.
2. Be able to recognize the factors that brought about the need for automated data processing.
3. Be able to identify the vocabulary with 70 percent accuracy.
4. Be able to identify five occupations of data processing.
5. Be able to recognize the business operations that can be handled by a computer.

INSTRUCTIONAL

- . Go over behavioral objectives.
- . Discuss Manual Data Processing
- . Hand out and discuss background for Data Processing.
- . Hand out and discuss vocabulary words.
- . Instruct students to fill in the activity sheet.
- . Discuss the factors which brought about the need for automated data processing.
- . Acquaint the students with the basic data processing cycle and the machines used.
- . Discuss the role of data processing as it relates to business record keeping, using a utility card as an example.

RESOURCES

Show carbon paper, window envelopes, credit card, or a pegboard.

Handout #1

Handout #2

Handout #3

Understanding Modern Business Data Processing, Gregg Division, Mc-Graw-Hill Book Co. pp. 12-15

Handouts #4 and #5

A utility bill, such as a water or an electric bill.

INSTRUCTIONAL

- . Discuss the following jobs and hand out the sheet with the job descriptions:
Key Punch Operator, Unit Record Equipment Operator, Computer Operator, Programmer, System Analyst, MT/ST Operator
- . Stress that the Key Punch Operator needs to know how to type.
- . Discuss additional training required and where it can be obtained--high school, vocational-technical school, college, or on-the-job training.
- . Discuss the basic aptitudes necessary for entering the field of data processing.

- . Give Logic Test.
- . Use a resource person who works in automated data processing to discuss the different jobs in his company.

- . Instruct students to complete the standard Form B, "Visiting Speaker."
- . Instruct the students as to the resources available in the classroom where information can be obtained to research his selected occupation.
- . Teachers should work individually with students in exploring the occupation selected.

ENRICHMENT

- . Use resource persons from IBM to talk about data processing in general, the changing picture of data processing, the future of employment opportunities, and the training requirements for the jobs of the future.
- . Instruct students to explore an occupation within a specific field, such as the Petroleum Industry.

RESOURCES

Handouts #6 and #7

Fundamentals of Data Processing, Chapter 18, South-Western Publishing Company.

Handout #8

Local DPMA Chapters will furnish names of speakers.

Companies who have computers will furnish names of speakers.

IBM Educational Specialist

Library
Petroleum Institute

INSTRUCTIONAL

- . Instruct students to do independent research on new and proposed uses of the computer.
- . Reference material
- . Discuss the card code for the alphabet.
- . Make up simple exercises and instruct the students to blacken the cards according to your directions and the information found in Handout #9.

RESOURCES

School Library

Business Data Processing,
Fundamentals of Accounting,
10/12, Part IV; Freeman,
Hanna, Kahn, Gregg Div.,
McGraw-Hill.

Handout #9

An IBM 80-column punch
card for each student.

KEY TO HANDOUT #3

1. recording-communicating
2. sorting
3. calculating
4. communicating
5. recording
6. sorting
7. calculating and summarizing
8. sorting and recording
9. recording
10. communicating
11. storing
12. summarizing and calculating
13. classifying and recording
14. sorting
15. classifying
16. communicating
17. storing
18. communicating
19. sorting
20. communicating

KEY TO EVALUATION

1. B
2. C
3. G
4. D
5. I
6. E
7. F
8. J
9. A
10. O
11. O
12. S
13. O
14. O
15. S
16. O
17. O
18. S
19. T
20. T
21. F
22. T
23. T
24. T
25. F

KEY TO HANDOUT #8

1. c
2. c
3. a
4. d
5. d
6. a
7. c
8. b
9. d
10. b
11. 18
12. 70¢
13. 39 3/4
14. \$1.80
15. 150, 450, 900
16. 3-5¢; 3-1¢
17. 2-10¢; 3-1¢
18. 1-50¢; 2-5¢; 3-1¢
19. 2-25¢; 3-5¢; 4-1¢

1. b
2. g
3. a
4. c
5. f
6. e
7. h
8. d

1. 21
2. 8
3. 19
4. 31
5. 43
6. 3
7. 56
8. 44
9. 26
10. 30

EVALUATION

Place the letter of the correct answer in the blank at the left of the number.

- A. Communicating
- B. Data
- C. Data Processing
- D. Input
- E. Output
- F. Sorting
- G. Source Documents
- H. Storing
- I. Recording
- J. Calculating

- ___ 1. Facts and information
- ___ 2. To examine, compare, and analyze data
- ___ 3. Business forms from which data must be collected, such as a check.
- ___ 4. The data that is to be produced.
- ___ 5. The process of writing, rewriting, or reproducing data by hand or by a machine.
- ___ 6. The information that has been processed and put into a usable form.
- ___ 7. The process of separating data into similar groups.
- ___ 8. The process of computing in order to arrive at a mathematical result.
- ___ 9. The process of getting information to the point of use, either oral or written.

Identify the following jobs as either Operations or Systems. Place an "O" to indicate your choice of Operations or an "S" to indicate your choice of Systems.

- ___ 10. Key Punch Operator
- ___ 11. Verifier Operator
- ___ 12. Programmer
- ___ 13. Machine Operator
- ___ 14. MT/ST Operator
- ___ 15. Systems Analyst
- ___ 16. Operations Manager
- ___ 17. Control Clerk
- ___ 18. Systems Programmer

Place a "T" or "F" in the blank at the left of the number of each statement to indicate your choice of true or false.

- ___ 19. The Systems Division is responsible for developing, writing, or implementing a data processing program.
- ___ 20. The Operations Division does the actual day-to-day processing of work.
- ___ 21. The MT/ST is considered by many to be the most important invention of this century.
- ___ 22. Data processing is the handling of factual matter of all kinds in order to produce a desired answer.
- ___ 23. Many jobs in data processing do not require a college education.
- ___ 24. A computer could be used to determine the outcome of an election.
- ___ 25. The computer did not help make the space age possible.

UNIT 11
Handout #1

Over the years, men have tried to find new and faster ways of processing material and data. The computer, which is considered by many as the most important invention of this century, is the latest in the long list of tools developed to make processing data easier. It has already opened a whole new range of discoveries. Without the computer, the space age would not be possible. The computer is also being used to prepare payrolls, keep bank accounts, check credit ratings on customers, check income tax returns, and to handle hundreds of other similar jobs.

The computer is also being used in factories to control the production of everything from candy to jets. Because it can work with statistical models, it is being used to help make decisions on such matters as locating new schools, predicting winners of national and local elections, and determining the selling price of products.

Data is a broad term denoting detailed information of any kind. Data processing is the handling of factual matter of all kinds in order to produce a desired answer or result and the processing consists of one or more of the following operations: recording, classifying, sorting, summarizing, calculating, communicating, and storing.

VOCABULARY

1. Original data - facts and information.
2. Data processing - to examine, compare, and analyze data.
3. Source Documents - business forms from which data must be collected, such as a check or a statement of account.
4. Input - the data that is to be produced.
5. Output - the information that has been processed and put into a usable form.
6. Recording - the process of writing, rewriting, or reproducing data by hand or by machine.
7. Classifying - the orderly assignment of data that are alike into a category according to established rules. Classifying may also be called "coding."
8. Sorting - the process of separating data into similar groups.
9. Calculating - the process of computing in order to arrive at a mathematical result. This usually results in the development of new information.
10. Summarizing - the process of changing the processed data into a usable form.
11. Communicating - the process of getting information to the point of use. This process covers both oral and written communications.
12. Storing - the process of filing information so that it may be used when needed. The files of a business could be compared to the reference books in the library.

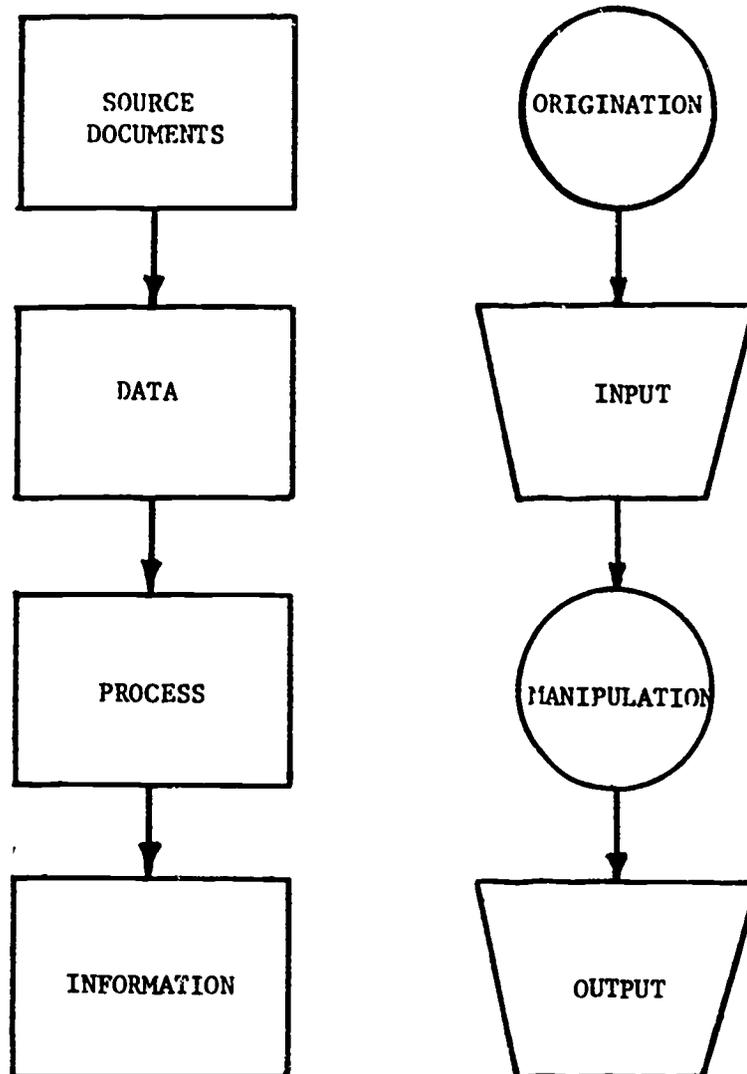
UNIT 11
Handout #3

In Handout #2, seven basic operations of data processing were listed. These were: recording, classifying, sorting, calculating, summarizing, storing, and communicating.

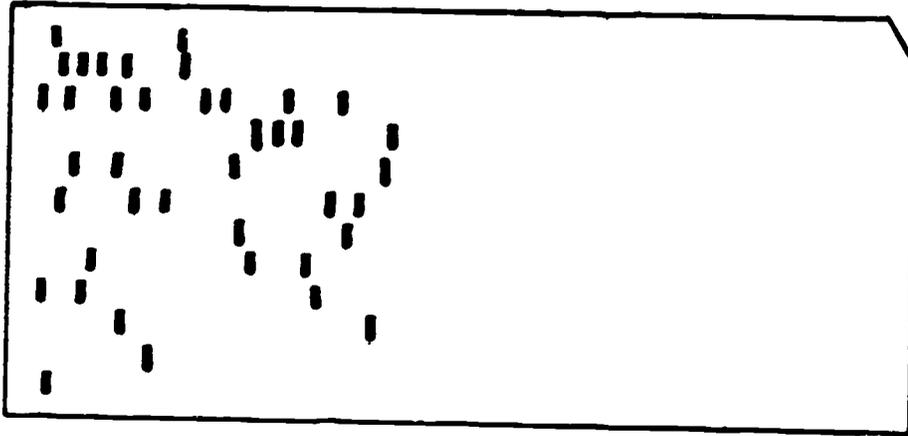
In the operations given below, indicate which one or ones of these seven operations would apply. The first one is given as an example.

- recording 7. Filling in the blanks on a personal check.
- _____ 1. Writing a letter.
- _____ 2. Selecting all of the pennies from the change you have in your pocket or purse.
- _____ 3. Determining the cost of an item.
- _____ 4. Giving an application form to a job applicant.
- _____ 5. Filling in the blanks on a Social Security Application Form.
- _____ 6. Selecting your report card from a stack of cards on the teacher's desk.
- _____ 7. Figuring your allowance for the week against your expenditures and determining what you will have left at the end of the week.
- _____ 8. Writing a list from memory of all your friends whose last names begin with an "s."
- _____ 9. Taking a photograph of a bulletin board.
- _____ 10. Sending a birthday greeting to a friend.
- _____ 11. Putting your personal belongings in your dresser drawer.
- _____ 12. Determining the grade average for your report card.
- _____ 13. Writing customers' names on invoices.
- _____ 14. Reading a book and circling all of the articles "the."
- _____ 15. Assigning a number to each of the states in the union.
- _____ 16. Replying orally to your teacher who has asked you the time.
- _____ 17. Putting your books in your locker.
- _____ 18. Calling the library to ask about a certain book.
- _____ 19. Arranging in alphabetical order the last names of the people in your classroom.
- _____ 20. Calling your mother to wish her a happy birthday.

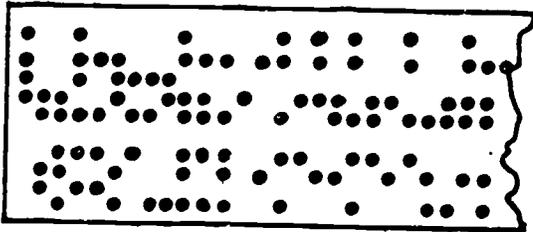
DATA PROCESSING CYCLE



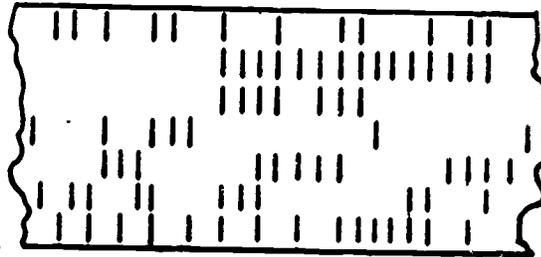
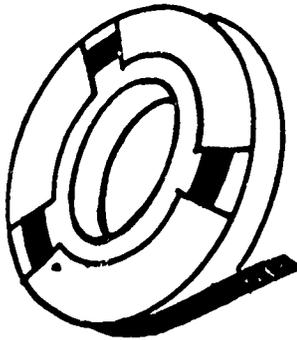
INPUT MEDIA



PUNCHED CARDS



PUNCHED PAPER TAPE



MAGNETIC TAPE

90-252
1211

DATE _____ 19____

PAY TO THE ORDER OF _____ \$ _____

_____ DOLLARS

CITIZENS NATIONAL BANK _____

⑆3211⑆0922⑆ 1234⑆05432⑆ ⑆0000000995⑆

MAGNETIC INK
CHARACTERS

UNIT 11
Handout #6

A Key Punch Operator - operates an alphabetic and/or numeric card punch machine to record data. He also prepares program cards for the card punch machine. A high school education is necessary for employment.

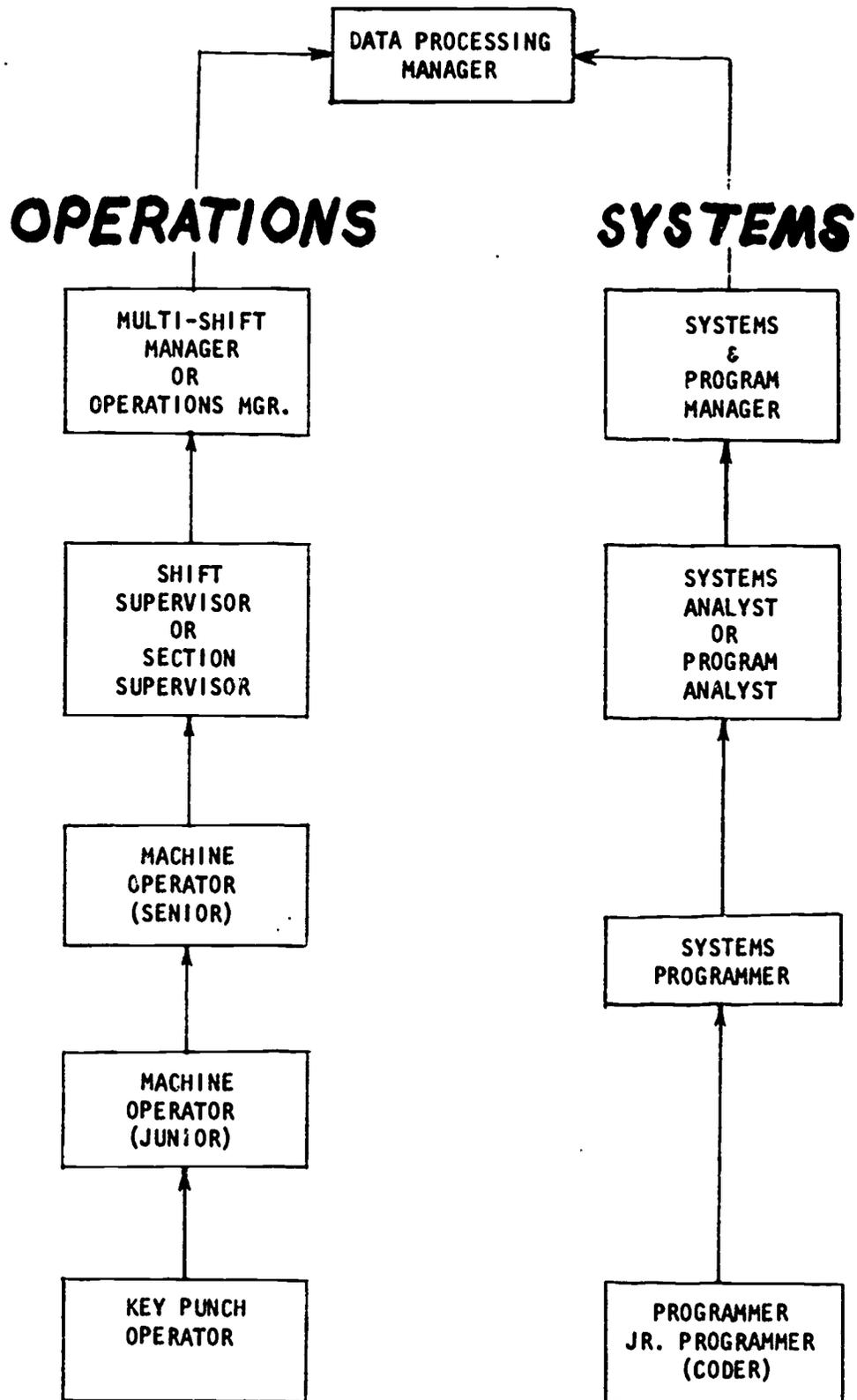
A Unit Record Equipment Operator - sets up and operates a variety of punched card equipment, including sorter, tabulator, and reproducers. Graduation from high school is required.

A Computer Operator - operates the computer, loads and unloads programs, manipulates control switches on the computer consoles, and maintains operating records. High school graduation plus office experience is required.

A Programmer - writes the instructions for the computer to solve problems and process data. Programmers must have the ability to understand problems and average instructions for solving them in logical order. A four-year college education is necessary with a degree in business or mathematics.

A Systems Analyst - is the best educated of all people working in a computer installation. He studies the system being used and tries to write a program that will make operation more efficient. Graduation from college is required plus a number of years of experience as a computer operator, programmer, or accountant.

An MT/ST Operator - transcribes from a dictating machine or types from rough draft copy using the magnetic type selectric typewriter. The operator must know how to type fast and must be familiar with the IBM Selectric Typewriter. As more and more word processing centers are installed, the demand for these operators will increase. The starting salary for an MT/ST operator is much higher than for a regular clerical employee or a key punch operator.



DATA PROCESSING LOGIC TEST

Directions: In each of the following analogies, the first two words compared are related to each other in some way. The same kind of relationship should exist between the second pair of words. You are given the first word of the second pair; select one of the lettered words to complete the pair. Indicate your selection by writing the letter by the correct number on your answer sheet.

1. THROW is to CATCH as SEEK is to (a) HIDE, (b) PEEK, (c) FIND, (d) SEARCH
2. ADD is to SUBTRACT as RAISE is to (a) SALARY, (b) EXPENSE, (c) LOWER, (d) RETREAT
3. CLERK is to OFFICE as COOK is to (a) KITCHEN, (b) SEW, (c) STOVE, (d) WAITRESS
4. ELEPHANT is to LARGE as THUNDER is to (a) LIGHTNING, (b) INJURE, (c) RAIN, (d) LOUD
5. BANK is to CHECK as POST OFFICE is to (a) CLERK, (b) POSTAL SAVINGS, (c) STAMPS, (d) MONEY ORDER
6. THERMOMETER is to TEMPERATURE as CLOCK is to (a) TIME, (b) MINUTE, (c) HANDS, (d) ELECTRICITY
7. DIME is to SILVER as PENNY is to (a) MINT, (b) GOLD, (c) COPPER, (d) COIN
8. ISLAND is to OCEAN as LAKE is to (a) SEA, (b) BOAT, (c) LAND, (d) SHORE
9. PEDESTRIAN is to PATH as AUTOMOBILE is to (a) GARAGE, (b) SIDEWALK (c) SAND, (d) ROAD
10. DOG is to HEN as KENNEL is to (a) STABLE, (b) COOP, (c) PEN, (d) PIG

Directions: You are to solve each problem and indicate which answer you think is correct by writing the proper answer on the answer sheet.

11. How many apples can you buy for 60 cents at the rate of 3 for 10 cents?
12. In 5 weeks John has saved \$3.50. What have his average weekly savings been?
13. The working hours in an office from Monday through Friday are 8:30 a.m. to 4:30 p.m. with 45 minutes for lunch and Saturdays from 8:30 a.m. to 12 noon. What is the total number of hours worked each week?
14. A bill for 5 typewriter ribbons and 24 pencils totaled \$9.95. If a typewriter ribbon costs \$1.25, what is the price of a dozen pencils?

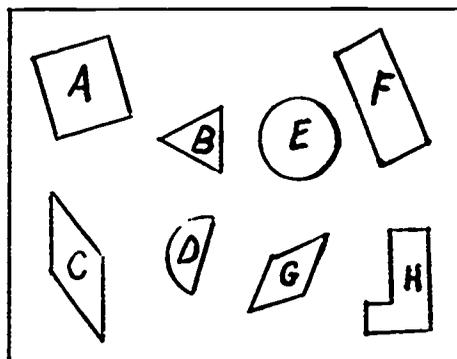
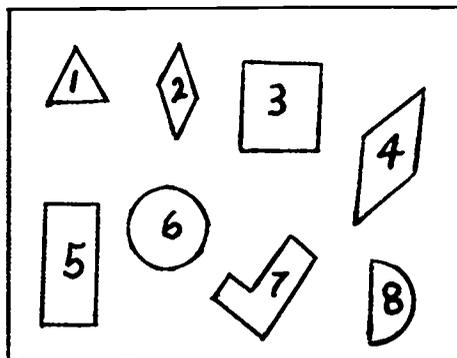
UNIT 11
Handout #8, cont.

15. A plant originally employed 1,500 machine operators, 3,000 assemblers, and 500 supervisors. Because of a rise in production, the total number of employees was increased to 6,500. If each group of employees increased proportionately, what was the increase in the number of assemblers employed?
16. What six coins will make up 18 cents?
17. What five coins will make up 23 cents?
18. What six coins will make up 63 cents?
19. What nine coins will make up 69 cents?

UNIT 11
Handout #8, cont.

Directions: The following numbers represent the eight figures in the top box. In the blank beside the numbers write the letter of the figure in the lower box that is exactly like the figure in the top box.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____



Directions: The numbers in each series below follow a certain rule. For each series you are to find the correct rule and complete the series, writing the next number in the series on the blank on your paper.

1. 3 6 9 12 15 18 _____
2. 20 18 16 14 12 10 _____
3. 10 11 13 14 16 17 _____
4. 4 6 9 13 18 24 _____
5. 19 23 27 31 35 39 _____
6. 3 4 5 3 4 5 _____
7. 53 58 54 59 55 60 _____
8. 11 14 18 23 29 36 _____
9. 23 19 24 18 25 17 _____
10. 27 25 28 25 29 25 _____

UNIT 11
Handout #9

CARD CODE FOR THE ALPHABET

A 12 - 1

B 12 - 2

C 12 - 3

D 12 - 4

E 12 - 5

F 12 - 6

G 12 - 7

H 12 - 8

I 12 - 9

J 11 - 1

K 11 - 2

L 11 - 3

M 11 - 4

N 11 - 5

O 11 - 6

P 11 - 7

Q 11 - 8

R 11 - 9

S 0 - 2

T 0 - 3

U 0 - 4

V 0 - 5

W 0 - 6

X 0 - 7

Y 0 - 8

Z 0 - 9

UNIT 12: ADMINISTRATIVE AND MANAGERIAL OCCUPATIONS
(Suggested Time: Five Days)

Behavioral Objectives

Upon completion of this unit the student will be able to:

1. Distinguish an administrative and managerial occupation from a skilled office occupation.
2. Identify the three levels of management that are common to many business organizations.
3. Know the type of training and experiences needed for managerial and administrative positions.
4. Recognize the general duties and responsibilities of administrative and managerial workers (planning, supervising, and coordinating).
5. Appreciate the functions of management in a business organization.

INSTRUCTIONAL

- . Explain behavioral objectives of unit to class.
- . Hand out sheet of "Facts About Managerial Occupations" and discuss with class.
- . Explain "Different Levels of Administration or Management" chart and the work done by each level.

ENRICHMENT

- . Discuss the organizational chart for the Little Rock Public Schools.
- . Secure other organizational charts of various businesses and go over with class.

RESOURCES

Handout #1a and 1b

Handout #2

"Administrative Policies Handbook"
Little Rock Public Schools, p. 28

FACTS ABOUT MANAGERIAL OCCUPATIONS

Administrative and managerial occupations are those occupations that involve working with people in planning, supervising, and coordinating the activities of an enterprise, either in accordance with specified policies and principles or by ones own initiative and authority.

The success or failure of a business probably depends more on how well it is managed than it does on anything else. In small businesses the owner does the buying, selling, hiring, bookkeeping, advertising, etc.

Business has now grown so large and so rapidly that there are now more than 4.7 million salaried managers in business and government. More supervisory and managerial people are needed each year. As offices, stores, factories, and other firms become larger, there is more need for supervisory personnel. For the person skilled at scheduling work, supervising others, and making decisions, there is great opportunity for advancement.

More jobs are open to women. Many women are filling positions in fields formerly open only to men. Increasingly, women are handling managerial positions in offices and retail stores.

More workers must be mobile. They are discovering that to obtain the kind of employment they want, they must be able and willing to move from one community to another. This mobility is especially important if an employer is one who advances employees from one job to another in different plants or units of the firm. For example, future supervisors and managers of retail chain stores are given chances to learn by being moved from one store to another. You can help yourself be mobile by getting the right kind of education. Develop the basic skills of reading, speaking, writing, and mathematics. Improve your ability to work with others.

Many persons designated as professional workers, such as engineers and scientists, and supervisory workers, such as foremen in factories, perform functions which are very similar to those of salaried managers.

The management setup differs widely among organizations, depending on the type of business or activity and the size of the firm. In general, the salaried managerial or administrative jobs can be divided into three levels.

The first level (Level I) consists of supervisory and trainee positions. Supervisors direct workers in such activities as sales, research, accounting, or purchasing. Also, on this level are the beginners (trainees) who are gaining experience which may later qualify them for higher managerial jobs. Many are college graduates who have been recruited because of their ability, personality traits, and training which make them promising candidates for management.

The second level (Level II) consists of managers or directors. They have the top posts in such large and important departments as sales,

UNIT 12
Handout #1b

accounting, marketing, production, purchasing, and personnel. These workers must not only be specialized in their fields, but must have a broad understanding of cost accounting, personnel practices, purchasing procedures, and similar skills. They must make decisions promptly and within the framework of company policy.

At the top of the management ladder (Level III) are presidents, vice-presidents, and other top officials. These people set company goals and make major decisions on company-wide policy. In fact, they decide the "how," "what," "when," and "by whom" about their company.

JOB TITLES

Level I - Supervisors or Trainees

Management Trainee	Sales Supervisor
Research Assistant	Research Supervisor
Accountant	Maintenance and Plant Supervisor
Assistant Purchasing Agent	Office Supervisor (Manager)

Level II - Managers or Directors

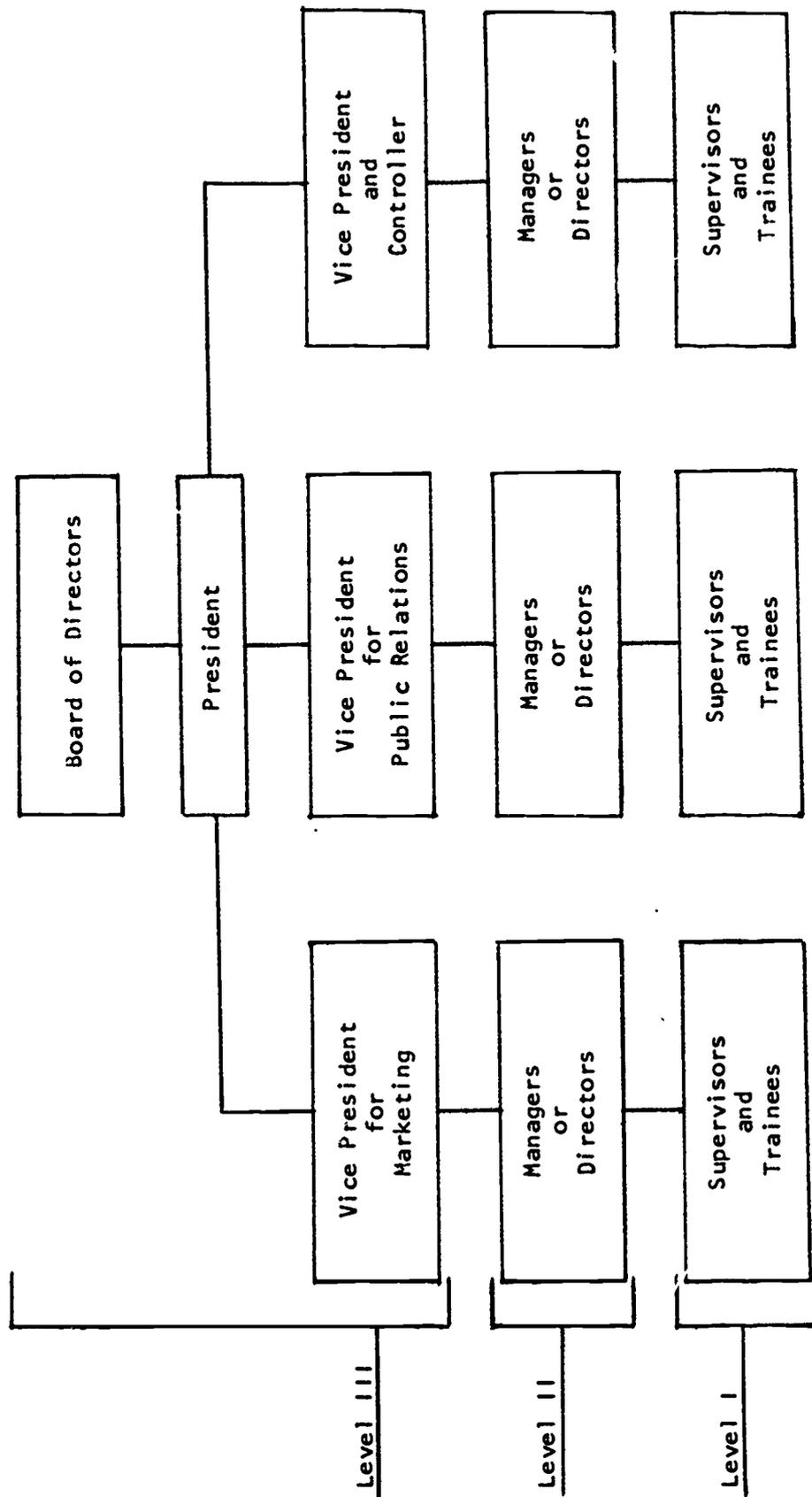
Accounting Department Manager	Personnel Director
Purchasing Manager	Sales Director
Production Directors	Marketing Director

Level III - Top Level Managers

Vice President for Marketing
Vice President and Controller
Vice President for Public Relations
Vice President-Administrative Assistant (Acts as liaison between all divisions and the president or top management.)

Reference: DeBrum, Haines, Malsbary, Crabbe, "The Changing Job World,"
General Business, Tenth Edition, South-Western, p. 610.

DIFFERENT LEVELS OF ADMINISTRATION OR MANAGEMENT



EVALUATION

True or False

- ___ 1. Administrative and managerial occupations are those occupations that involve working with people in planning, supervising, and coordinating the activities of an enterprise.
- ___ 2. A bookkeeper employed by the OC Record-Tape Company would be considered one of the managerial staff.
- ___ 3. Many professional workers such as engineers, scientists, and technical workers do administrative and managerial work in business and government.
- ___ 4. Supervisors and vice presidents represent the first level of management.
- ___ 5. Managers and directors represent the second level of management.
- ___ 6. Presidents and trainees represent the third or top level of management.
- ___ 7. The first level of management directs work in such activities as sales, accounting, marketing, and production of a business.
- ___ 8. The middle class of management must make decisions promptly and within the framework of company policy.
- ___ 9. Supervisors, managers, and presidents need not only to be specialists in their field but must have broad understanding of the entire business for which they work.
- ___ 10. The top level of management is not interested in company goals, that is, the "how," "when," and "by whom."
- ___ 11. Most administrative and managerial workers need a college education as well as some technical training.
- ___ 12. Many managerial and administrative occupations require special personality traits in addition to education and training.
- ___ 13. A key punch operator's work is considered as administrative or managerial work.
- ___ 14. An office supervisor is a part of the administration and his work is considered managerial.

KEY: 1-T, 2-F, 3-T, 4-F, 5-T, 6-F, 7-T, 8-T, 9-T, 10-F, 11-T, 12-T, 13-F,
14-T

UNIT 13: PROFESSIONAL AND TECHNICAL CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

Upon completion of this unit the student, on a written test, will be able to:

1. List ten professions that have been explored and discussed in class.
2. Write a paragraph on the trends for job opportunities in the professional and technical occupations.
3. List the basic high school courses needed to enter a professional or technical occupation.
4. Write a paragraph on the advantages and the disadvantages of professional careers.
5. Intelligently explore a professional or technical occupation and complete Form A for their notebook.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Discuss objectives.	
<ul style="list-style-type: none">. Discuss jobs listed under "Professional and Technical Occupations." Ask students to name others.	Handout #1
<ul style="list-style-type: none">. Teacher presentation and class discussion:<ol style="list-style-type: none">a. Facts about professional and technical occupationsb. Explain and discuss graphs	Handout #1 Transparencies #1 and #2
<ul style="list-style-type: none">. Assignment: Each student should choose a profession and make a thorough study of it. Use Form A to record facts and information. Secure as much information as possible on the profession. Study information after it has been collected and prepare to answer questions about the profession.	Form A
<ul style="list-style-type: none">. Explain how to play the game, "What's My Line."	

INSTRUCTIONAL

- . Allow class to play "What's My Line" until each student has served as a panel member and as the guest with the job.
- . Give Post Test

ENRICHMENT

- . Suggested Activity: Invite speakers from at least three different professions to speak to the class. (Allow students to decide what three.)
- . Refer students to reference books for exploring professional and technical occupations.
- . Each student may interview three professional people and complete Form C (interview report) on each one. Ask the students to find out how these persons decided on their particular professions.

RESOURCES

Occupational Outlook Handbook, 1970-71,
U.S. Department of Labor,
Bureau of Labor Statistics,
Bulletin No. 1650, pages
23-260

OB Guide for Young Workers, 1969-70 edition,
U.S. Department of Labor,
Manpower Administration,
Washington, D.C. 20210,
pages 22-31

Occupations and Careers,
S. Norman Feingold and
Sol Swerdloff, Webster
Division, McGraw-Hill,
pages 146-201

Form C

"WHAT'S MY LINE"

The learning activity which has been most meaningful to my I.V. classes is the game, "What's My Line," as it was played on television some several years ago.

First, every student looks up a profession of his own choosing and prepares himself to answer questions concerning this job. Then, as we play it, the teacher selects a panel of four, plus a timekeeper. This selected panel questions four students who are usually volunteers. The students who are questioned can only answer "yes" or "no," but the moderator, (in this case, the teacher), might have to intervene now and then to qualify an answer.

Each panel member questions one minute, after which the timekeeper blows the whistle and the next panel member takes up the questioning where the last member left off. In the event the panel does not guess the job in seven minutes, the student being questioned tells what he does. After this selected panel has questioned the four volunteers, the four having been questioned serve as panel members and four more volunteers are questioned. Thus, each student serves as a panel member and as the guest with the job.

I have found that if the panel members are provided with some of the leading questions, the game gets off to a good start, and the students relate to the theory of job studies. We usually start by finding out whether the job is a professional or a technical occupation. This also helps to keep the audience "on their toes."

This game has proved more successful in my classes than anything we have tried other than field trips.*

Each panel member will question the contestant for one minute. Questions will be for the purpose of determining the particular occupation that the student has in mind. Following are examples of questions the panel might ask: (A hint might be given in order to get the questioning started.)

1. Do you work in an office?
2. Do you work with words? Figures? Machines? What percent of time?
3. Do you work with people?
4. Was special training necessary for this job?
5. Did you get your training in high school? Vocational School? College?
6. Do you have special skills? Typewriting? Shorthand?
7. Did you go through the COE Program in high school? The D.E. Program?
8. Did you have on-the-job training?
9. Do you have regular working hours? Do you ever work overtime?
10. Is a license necessary for this job?

*Adapted from: Vocational Orientation Teacher's Guide by Mrs. Scott G. Dickinson.

PROFESSIONAL AND TECHNICAL OCCUPATIONS

PROFESSIONAL OCCUPATIONS:

Professional occupations are the fastest growing of any of the major occupational groups in our labor force. They hold many attractions for young people considering a career, especially for those who plan to attend college. These occupations offer opportunities for interesting and responsible work. Often they lead to relatively high earnings. As a rule, however, they can be entered only after long periods of specialized education or other preparation. About 10 million persons were employed in professional occupations in early 1967.

Most professional occupations require either college graduation or experience of such kind and amount as to provide comparable knowledge. To succeed in many professional occupations, one needs advanced degrees. Professional occupations are of two main types. The larger group, including such professions as engineering, medicine, law, and teaching, requires formal education in a specific field. The other group, including such occupations as editing and acting, does not require as much specialized, theoretical knowledge but demands a great deal of creative talent and skill acquired chiefly through experience. Licenses are required for practice in many professions; for example, medicine, dentistry, and pharmacy. Licensing authorities determine the minimum qualifications which members must have. One point that young people must bear in mind is that it is not easy to prepare for and enter professional work. Often applicants are not accepted for professional training unless their school grades are high.

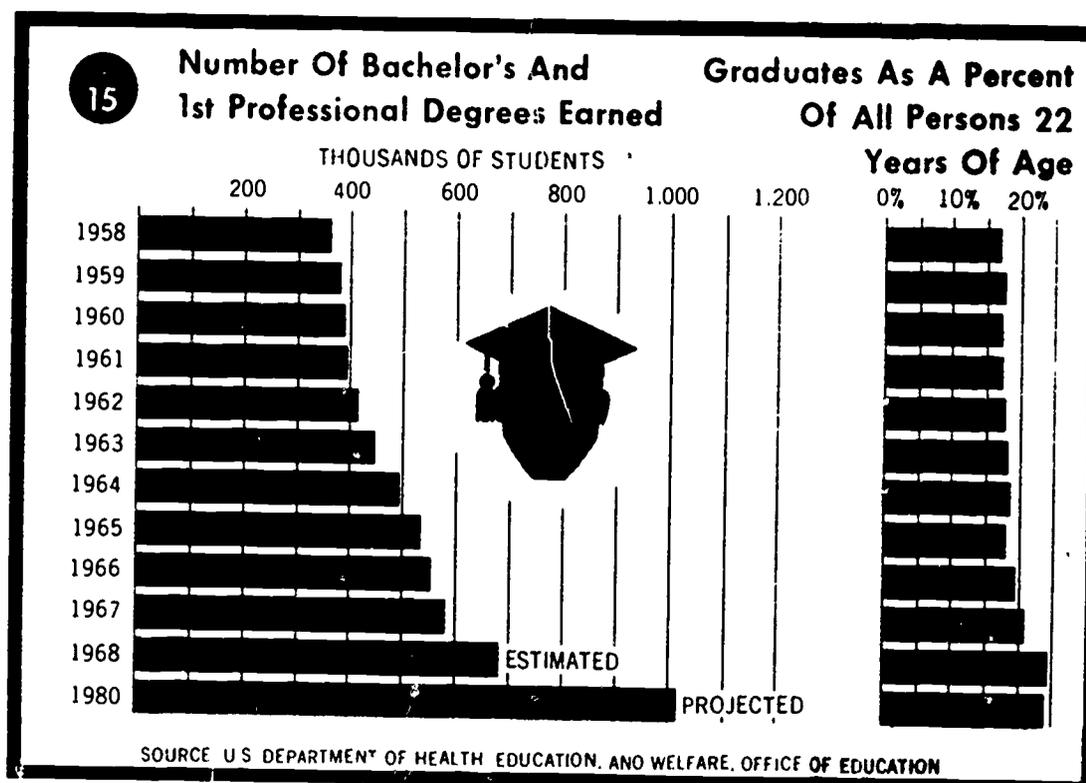
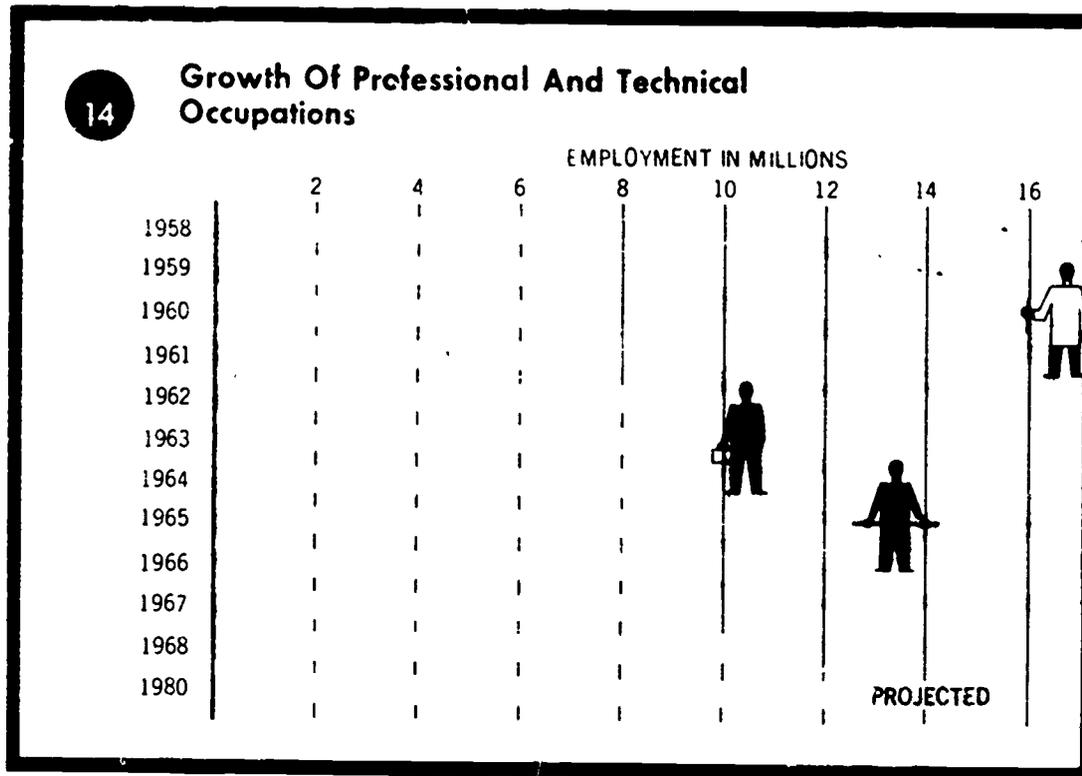
TECHNICAL OCCUPATIONS:

Closely related to the professions is a wide variety of technical occupations. People in these occupations work with and assist engineers, scientists, physicians, and other professional personnel. Included in this group are, for example, draftsmen, engineering aides, computer programmers, electronic technicians, laboratory assistants, and X-ray technicians. Employment in these technical occupations usually require a combination of basic scientific knowledge and specialized education or training in some particular aspect of technology. Such training may be obtained in technical institutes, junior colleges, area vocational schools, and other post-high school institutions or through on-the-job training. Sometimes the duties of technicians are performed by beginning professional workers.

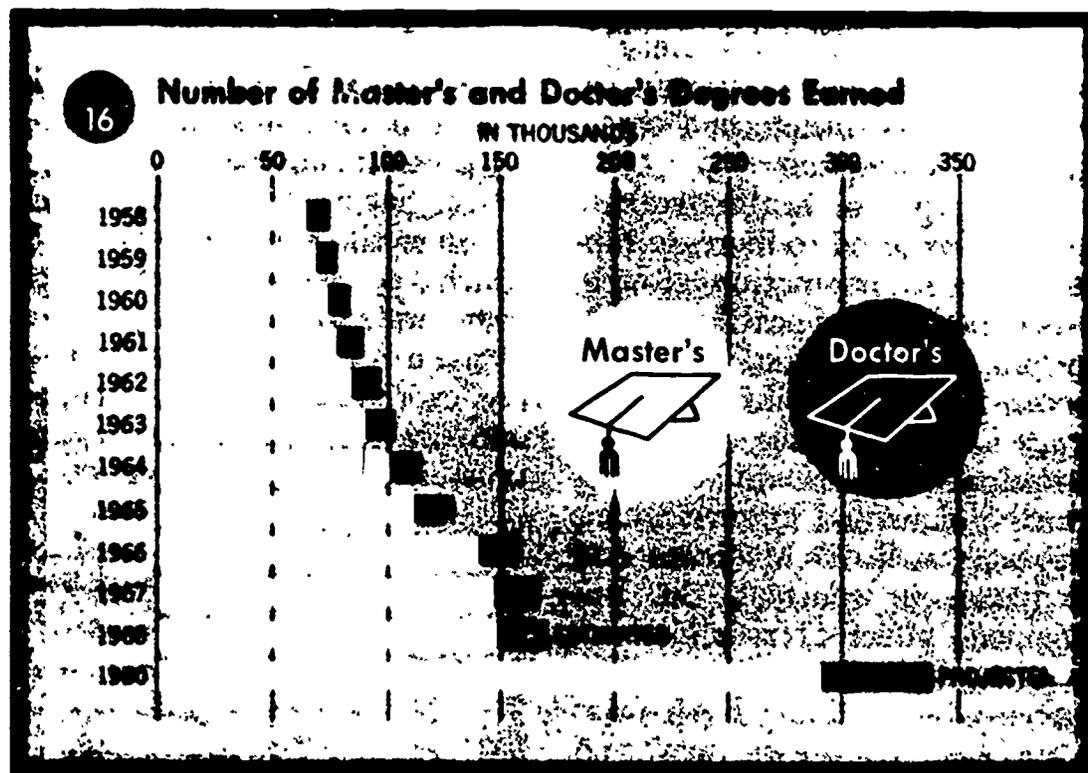
The professions provide many opportunities for women. In early 1967 women held more than a third of all professional and technical jobs. Women held most of the positions in several large professional occupations-- elementary school teaching, nursing, library work, and social work.

Professional and technical occupations are expected to continue to be the fastest-growing occupational groups. The U.S. Bureau of Labor Statistics has estimated that employment in these occupations will rise by about 40 percent or more in the 1966-75 period. This is almost twice the rate of growth expected for total employment. There will be considerable differences in the rate of growth among the various professional occupations.

PROFESSIONAL AND TECHNICAL OCCUPATIONS



PROFESSIONAL AND TECHNICAL OCCUPATIONS



POST TEST

1. List ten professions that have been explored in our Investigation of Career Opportunities Class.
2. Write a paragraph about the trends for job opportunities in the professional and technical occupations.
3. List the basic high school courses needed to give one the background needed to enter a professional occupation.
4. What kind of grades should a student earn on school subjects if they plan to enter a professional or technical occupation?
5. Write a paragraph on the advantages and the disadvantages of professional careers.
6. Do you think you would like to enter a professional occupation as your life's work? If yes, why? What profession would you choose?

INSTRUCTIONAL

- . Ask students to imagine and describe an economy with only 3 of the 4 productive services.
- . Have students list several consumer goods and services and tell what employment opportunities are created.
- . Discuss the flow of money.
 1. Explain and show by chart that money flows from households to business firms to pay for goods and services.
 2. Explain and show by chart that money flows from business firms to households (or individuals) to pay for productive resources hired. This money is in the form of wages, salaries, interest, rent, and dividends.
- . Discuss the major forms of business.

RESOURCES

Handout #3

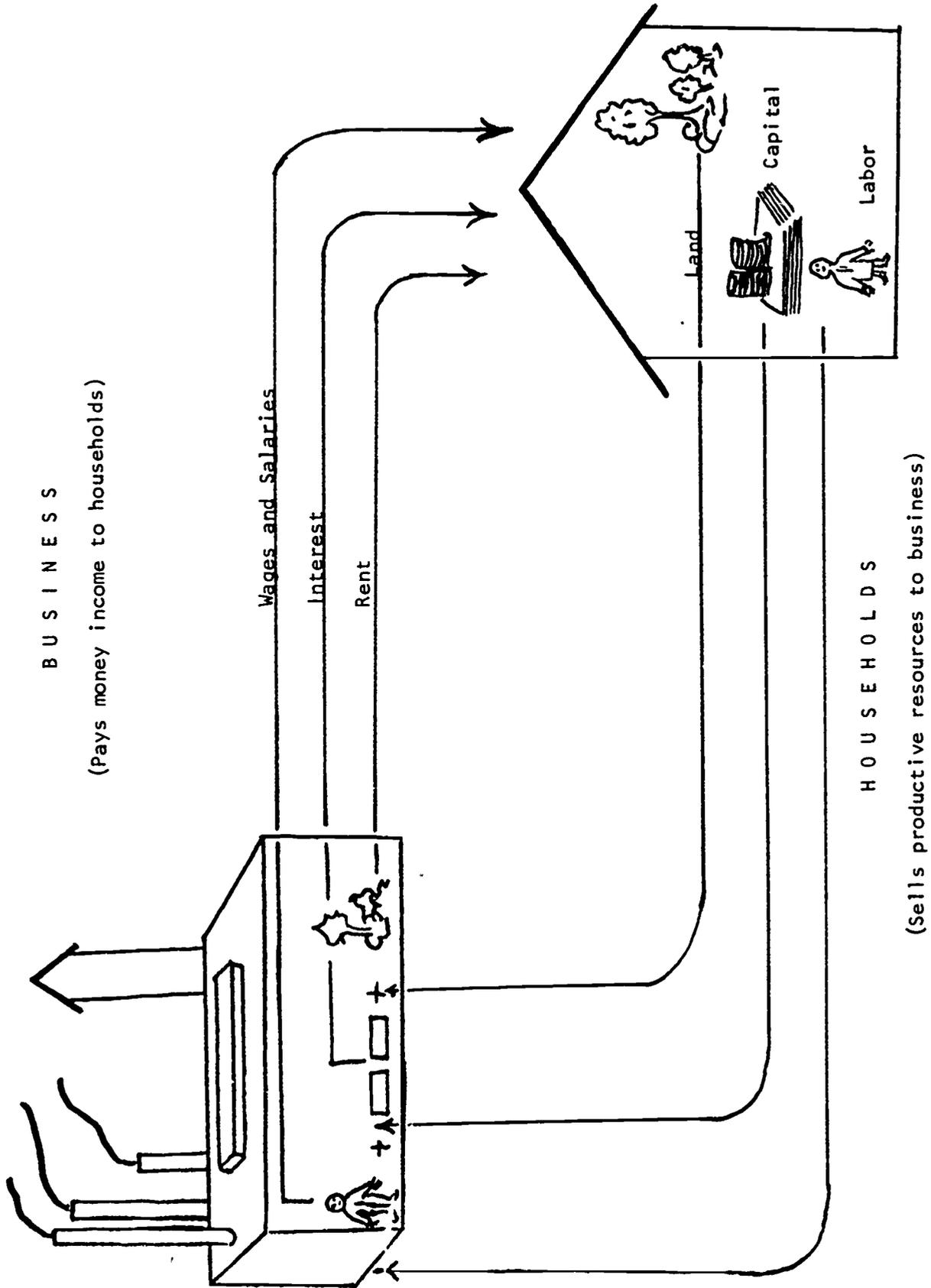
Enrichment

Divide the class into four groups. Assign each group one of the four forms of business enterprises discussed. One member of each group should prepare to serve on a panel to discuss his group's form of business and try to convince the class that his form is best.

UNIT 14
Handout #1

SOME IDENTIFYING CHARACTERISTICS OF A "FREE ENTERPRISE ECONOMY"

1. Right to own private property--This means the right to own the item itself and also the right to own stocks, bonds, insurance, contracts, etc.
2. Right to make a profit from the use of one's resources (land, labor, capital).
3. Principle of competition (competition enters when there are several potential buyers and sellers).
4. Freedom of enterprise--The right of an individual to decide what business to enter and what goods or services to produce.
5. Freedom of choice--The right of an individual to buy the goods and services he chooses and work where he chooses.
6. Freedom of contract--The right of individuals to bargain with one another and to exchange goods and services on terms which are mutually acceptable.



MAJOR FORMS OF BUSINESS ORGANIZATION

- I. Single Proprietorship - any business which makes a product or which distributes or services a product and is owned and operated by a single owner.
 - A. Characteristics
 1. Usually small
 2. Owned by one person
 3. Owner is responsible for management decisions
 4. Owner supplies money for operating business
 5. Owner has unlimited liability
 6. Owner receives profits and assumes the losses
 - B. Advantages
 1. Opportunity for person to work "on his own."
 2. Owner makes own decisions
 3. Can establish friendly relationship with employees and customers
 4. Simple organizational structure
 5. Receives all profits
 - C. Disadvantages
 1. Has unlimited liability
 2. Owner must provide capital for getting started and for operating expense
 3. Adequate financing for expansion sometimes difficult to obtain
 4. Employees have limited opportunities to grow into management positions

- II. Partnership - a business enterprise owned and operated by a small group of men
 - A. Characteristics
 1. Needs legal contract between partners
 2. Operated under laws dealing with partnerships
 3. Decision making usually shared by the partners
 4. Profits or losses shared according to predetermined arrangements
 5. Each partner responsible for the acts of others
 6. Each partner legally responsible for all debts
 - B. Advantages
 1. Capital of two or more can be combined to start and operate business
 2. Credit usually easier to obtain
 3. Experience and ability of two or more men can be combined
 4. Allows for greater specialization
 5. Spreads risk of loss
 - C. Disadvantages
 1. Each partner personally responsible for all debts of the business
 2. Withdrawal of one partner or death of one requires the legal formation of a new partnership

- III. Corporation - an organization formed by three or more persons and authorized by state government to operate and conduct a certain kind of business

UNIT 14
Handout #3, cont.

- A. Characteristics
 1. Has charter issued by state
 2. Legal entity
 3. Owners are issued shares of stock
 4. Stockholders elect board of directors
 5. Profits paid to stockholders as dividends on shares of stock owned
 6. Stockholders have limited liability
 - B. Advantages
 1. Easier to raise capital
 2. Expert management possible
 3. Liability limited to investment
 4. Certain tax advantages
 - C. Disadvantages
 1. Absentee ownership
 2. Minority control
 3. Government regulation and control
 4. Expensive to organize
 5. Restriction by charter
- IV. Cooperative - a type of business organization chartered by the state to provide some commodity or service that people will buy
- A. Characteristics
 1. Basic aim to serve the people who belong to it
 2. Profits, if any, are divided among the cooperators
 3. Cooperators choose board of directors and officers
 4. Voting is done one vote per member
 5. Capital gained by sale of stock or membership fees
 6. Goods and services usually sold to members at cost
 7. Members not liable for debts of cooperative
 8. Exempt from federal income tax
 - B. Advantages
 1. Reduced cost for goods and services to members
 2. Members not liable for debts of cooperative
 3. Patronage dividends to members
 - C. Disadvantages
 1. Members must purchase goods or services from the cooperative to benefit from it
 2. Usually limited variety of goods and services available

EVALUATION

1. Name the basic characteristics of a market economy.
2. Name four major forms of businesses. List some advantages and disadvantages of each.
3. What important functions do profits perform?
4. Name the factors of production.
5. Draw and explain the "circular flow" of goods and services.

Key

1. Private property
Profit motive
Principle of competition
Freedom of enterprise
Freedom of choice
2. Single proprietorship
Partnership
Corporation
Cooperative
3. Motivates people to enter business with the expectation of economic gain.
Profits are used to expand or build new enterprises.
Profits serve to reward the risk taker.
4. Land (Natural Resources)
Labor (Human Resources)
Capital Goods (Tools, Machines, etc.)
Entrepreneurship (Risk Taker)

UNIT 15: ORIENTATION TO THE HOME ECONOMICS LABORATORY
(Suggested Time: Three Days)

Behavioral Objectives

1. The students will have an opportunity to study, compare, and contrast their personal characteristics with each other and other people by completing a self-analysis rating scale and by applying positive efforts to practice traits as determined by the teacher each week.
2. The students will follow safety practices and good work habits in the laboratory as outlined by the teacher and will refer to these instructions when directed by the teacher or student manager.
3. The students will take responsibility in the organization of the class on a rotating plan so that all students will have responsibility within the organization as determined by his superior (supervisor).
4. The students will keep a written record of occupations explored within a category that will provide important factors to consider in making a tentative choice later in the year for the purpose of planning next year's curriculum.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<p><u>Behavioral Objective #1</u></p> <p>Personal characteristics will play an important role in most any occupation that may be selected as a career.</p> <ul style="list-style-type: none">. Complete a self-analysis rating scale. Challenge students to develop and strengthen those qualities which need developing and strengthening.. Use pictures to demonstrate first impressions	<p>Handout #1</p> <p>Penney's Chart (Ask Penney's Store Manager)</p>
<p><u>Behavioral Objective #2</u></p> <p>Instructions for layout of the laboratory and work habits and how they can be developed in this and other laboratory experiences</p> <ul style="list-style-type: none">. Distribute sheet of rules and practices.	<p>Handout 2a</p>

INSTRUCTIONAL

RESOURCES

Behavioral Objective #3

- . Organize the class for work experiences
- . Prepare an organizational chart

Handout #2b

Behavioral Objective #4

- . Introduce form for important factors to consider about occupations explored within a category

Form A

ENRICHMENT

- . Write an autobiography including data on hobbies, interests, work experiences at home and in the neighborhood, and similar information.

EVALUATION

Teacher will note problems and consider ways to minimize.

1. Does the student have obvious conflicts in the classroom?
2. Does the student willingly refer to rules for safety and good work habits when brought to his attention?
3. Does the student accept and carry out his work role in the group?

SELF-ANALYSIS: WORK ACTIVITIES

This a self-analysis of your work activities, designed to help you know yourself and to assist you in making personal adjustment. Work requires mental and physical effort. A sense of duty enters into the performance of certain tasks, particularly the monotonous and distasteful ones. The activities of work are those that need to be performed for the completion of the job on time. To the right of each work activity listed below, place a check mark in the column that most nearly describes your case.

WORK ACTIVITY	Always	Often	Seldom	Never
School Work				
Chores and Household Duties				
Special Home Projects				
After-school Employment				
Special School Projects				
Saturday Work				

SELF-ANALYSIS: HEALTH ACTIVITIES

This is not a test, but is intended to help you know yourself and to assist you in making personal health adjustments. The value of this self-analysis depends on the honesty with which you complete it. Place a check mark in the column that most nearly describes each of your health habits.

ACTIVITY TO PROMOTE AND MAINTAIN HEALTH	Always	Often	Seldom	Never
Eat Balanced Meals				
Keep Body Clean				
Secure Sufficient Rest and Sleep				
Take Adequate Physical Exercise				
Secure Abundance of Fresh Air				
Prevent Undue Waste of Nervous Energy				

Be prepared to discuss in class, as a result of your self-analysis, those work and health activities which you need to improve.

UNIT 15
Handout #2a

ORGANIZATION PLAN

Suggested plan for working in food laboratory

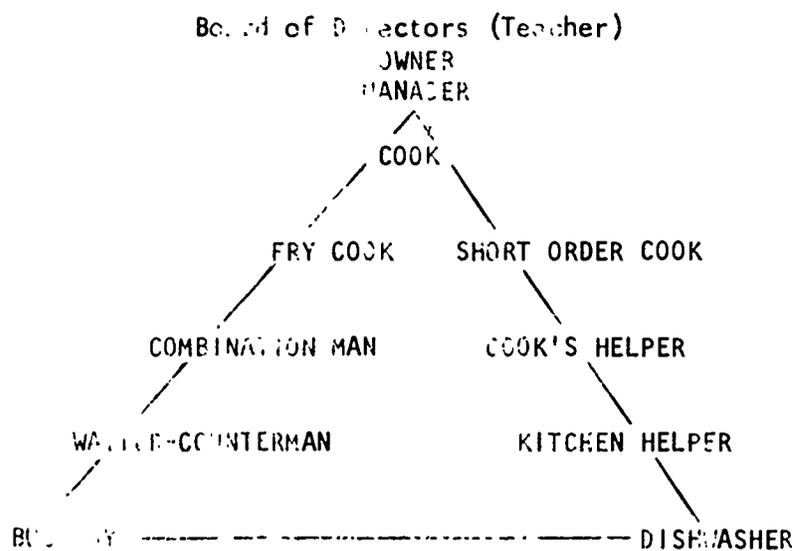
Put away books and coats
Control long hair: **HANDS OFF!**
Wash hands and wait for instructions
Get supplies
Prepare food
EAT
Clean up

Reminders:

Use caution with HOT food and equipment and with SHARP objects.
Cover mouth for sneezes and coughs.
Assume fair share of responsibility.

Handout #2b

ORGANIZATION CHART



UNIT 16: CAREERS IN THE FOOD SERVICE INDUSTRY
(Suggested Time: Five Days)

Behavioral Objectives

1. The student will identify occupations in the food service industry and will select one or more for further study.
2. In a class discussion, the student will compare costs of operation and receipts of a typical restaurant to consider factors influencing profits.
3. The student will recognize the effects of individual consumer decision-making to management and to labor by computing the effect in dollar value.
4. The student will practice critical evaluation of food products prepared in class or when eaten in a restaurant in order to maximize personal taste and satisfaction.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<p><u>Behavioral Objective #1</u></p> <ul style="list-style-type: none"> . Pretest "What do you know about the food service industry?" . Simulated restaurant work role experience <p>Organize class into management and staff; if class is large enough may also have "customers" who will do research first, then rotate jobs.</p> <ul style="list-style-type: none"> . Plan work for on-the-job training. . Research jobs and write a report on at least one occupation in this category. . Carry out on-the-job training plans. . Repeat dinner, lunch, and breakfast menu to give increased opportunities for both work role and "customer" experience. 	<p>Handout #1</p> <p>Handout #2</p> <p>U.S. Department of Labor, <u>Occupational Outlook Handbook</u></p> <p>"Food Service Workers" <u>Job Guide for Young Workers</u>, pp. 301-306</p> <p>Mini-folders from Arkansas Employment Security (311, 878) pp. 84, 90, 100</p>

INSTRUCTIONAL

Behavioral Objective #2

Class discussion of work role experience

Worker-customer, worker-employer, worker-worker relationships

Salaries, hours, working conditions

Compare costs and receipts of a typical restaurant

Behavioral Objective #3

- . Factors influencing profits, salary increases, price of product, quality of product

Behavioral Objective #4

- . Prepare cupcakes using Merico dough

ENRICHMENT

- . Visit a restaurant individually or as a group and write a report telling what you were able to find out. (Teacher will individualize assignment.)
- . Research information about food service in institutions such as colleges, camps, or hospitals.
- . Show slides of assembly line food products.

RESOURCES

Food for Us All
The Yearbook of
Agriculture 1969;
U.S. Government
Printing Office,
pp. 62-65

Transparency #1

Merico, Inc.,
4300 Homer Street
Little Rock, Arkansas

Additional information
may be obtained from:
The American Dietetic
Association
620 North Michigan Ave.,
Chicago, Ill., 60611

EVALUATION

Post-test same as pretest. Compare scores.

VOCABULARY

cafeteria
capital
competition
consumer
cost
counter service

drive-in
investment
loss
price
profit
restaurant

ANSWERS TO HANDOUT #1:

- | | | | | |
|------|------|-------|-------|-------|
| 1. T | 5. T | 9. T | 13. T | 17. T |
| 2. F | 6. F | 10. F | 14. T | 18. T |
| 3. F | 7. F | 11. F | 15. T | 19. T |
| 4. T | 8. T | 12. T | 16. F | 20. F |

PRETEST AND POST TEST
WHAT DO YOU KNOW ABOUT THE FOOD SERVICE INDUSTRY?

Directions: Number a blank sheet of paper from one to twenty. Read each statement and indicate on your answer sheet whether you think the statement is true or false.

1. As a nation we spend a smaller proportion of our take-home pay for food than in any other country in today's world.
2. The family going out for dinner is apt to choose a restaurant some distance away from home.
3. Drive-in service is more important in central business districts than in rural areas.
4. Restaurants catering to the under-35 groups have been growing even faster than the food service industry as a whole.
5. Eating places that specialize in seafoods, chops, steaks, and roast beef are likely to have sales of \$100,000 or more a year.
6. The owner of a restaurant can serve the same menu year after year.
7. The more dollars we make, the less we spend for food away from our homes.
8. Chains have the necessary staff and resources to do research and invest in market studies.
9. Customer recognition is one reason chain operations are growing.
10. Fewer people will be needed to work in and manage food service units in the 1970's.
11. When the wife works, the family is likely to eat out less often.
12. The widespread popularity of certain foods has led to the growth of eating places featuring limited menus.
13. New equipment and ready-to-serve foods of the future won't ease the industry's need for good talent.
14. One of the services we like most is having someone else do our food preparation and cleaning up for us.
15. In small eating places, sandwiches and refreshments are the most important specialty.
16. Counter service is much more important in suburbs and rural areas than in central business districts.

UNIT 16
Handout #1, Cont.

17. We need to be informed about the food industry and the way it operates.
18. Public policies are needed which promote fair competition among participants in the food industry so that efficient firms can survive and grow.
19. Bad checks, pilferage, and destruction of property are examples of acts which add to marketing costs and to our food bill.
20. Institutions like a hospital, college, or camp serve only a small number of people.

UNIT 16
Handout #2

RECIPE SHEET

Pizza for 24

1 biscuit for each person
1 heaping tablespoon hamburger meat
1/2 tablespoon tomato sauce
1 dash oregano

Directions:

Roll canned biscuit 1/4 inch thick
Spread tomato sauce on biscuit
Place meat and cheese over sauce
Add dash of oregano
Bake 10 minutes in 450 degree oven
Serve hot

Grocery List

2 cans biscuits (12 to can)
1 1/2 lbs. hamburger meat
2 lbs. processed cheese
(sliced)
2 8-oz. cans tomato sauce
1 box oregano

Cold Sandwich

Choice: 2 meat or 1 meat & 1 cheese
Choice of spread
2 slices sandwich bread
2 cookies
1 glass Kool Aid

Directions:

Take orders and prepare sandwiches
Assembly line preparation
Serve correctly
Eat correctly
Remove dishes correctly
Follow planned clean-up procedure

Grocery List

12 slices bologna
12 slices lunch meat
2 lbs. sliced cheese
1 large jar mustard
1 large bottle catsup
3 loaves bread (16 slices)
3 bags cookies
3 pkgs. Kool Aid

Hot Chocolate

Directions:

Heat milk in double boiler
Add Nestle
Pour into cups
Top with marshmallow

Grocery List

1 large box Nestle
1 box instant milk
1 bag marshmallows

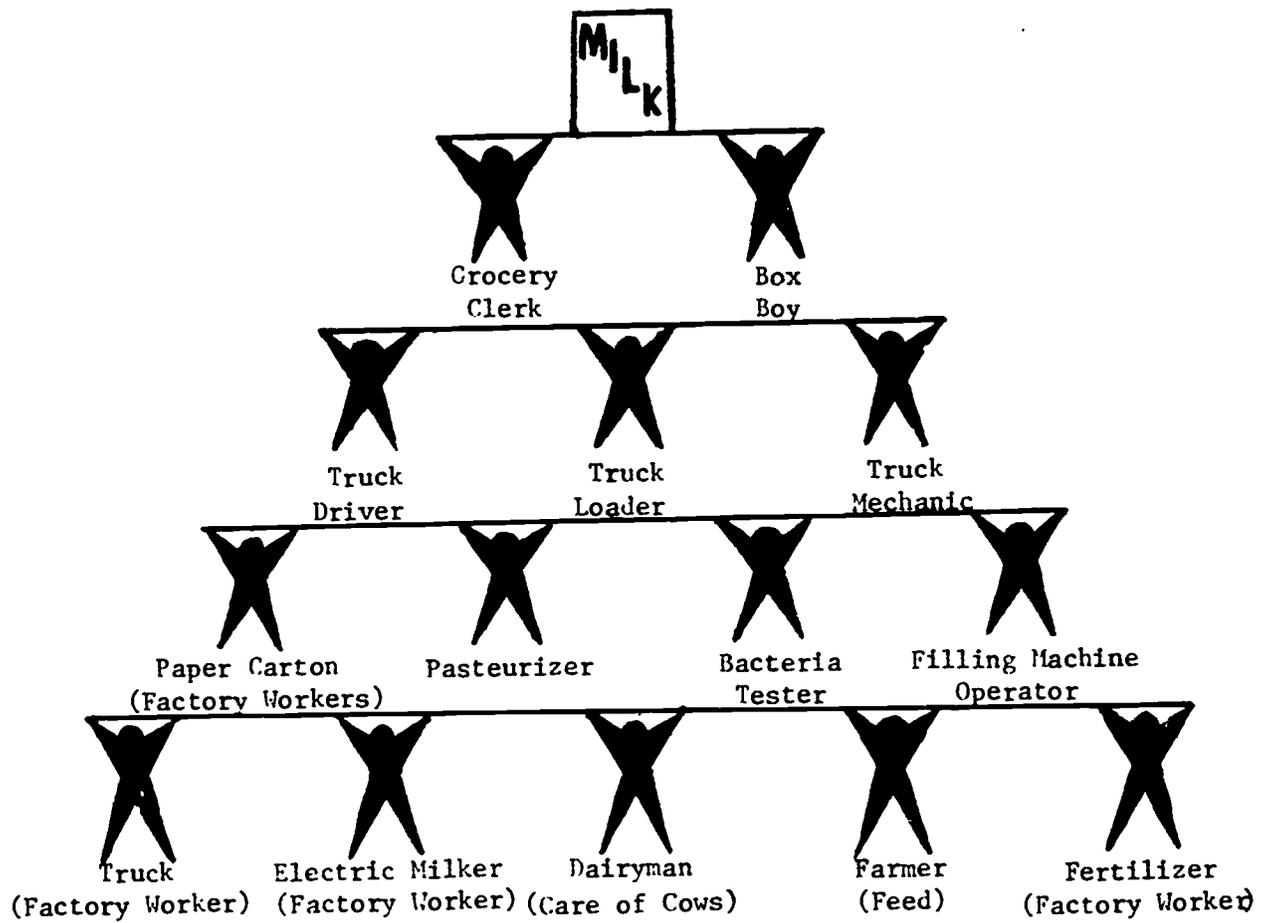
Sweet Rolls

Directions:

Stretch and flatten biscuit
Add mixture of cinnamon and sugar to cover
Put one slice of margarine on each biscuit
Fold edges to middle
Place in muffin pan
Bake 10 minutes in 450 degrees oven

Grocery List

2 cans biscuits (12 to can)
1 lb. margarine
1 lb. sugar
1 box cinnamon



PEOPLE PYRAMID

UNIT 17: CONSUMER AND HOMEMAKING OCCUPATIONS
(Suggested Time: Four Days)

Behavioral Objectives

1. Students can match eight of ten occupations with job descriptions on a written test at a time selected by the teacher.
2. Students will use information about their community to list at least ten occupations in this cluster and will write a job description of at least one of them.
3. Students will demonstrate use of an appliance or a product in small or large groups for five minutes or less.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<p><u>Behavioral Objective #1</u></p> <ul style="list-style-type: none"> . Invite guest speakers from the area or assign students to interview and report to the class on several of these occupations. . Make a poster describing educational, aptitude, age, and other requirements. . Test may be used to introduce study, after hearing guest speakers or reports, or use last. 	<p>Lighting Consultant, Loca! Electric Company or Power and Light Co. U.S. Agriculture Ext. Service Housing Specialist Equipment Specialist Home Furnishings Interior Designers and Home Decorators Appliance Dealers</p>
<p><u>Behavioral Objective #2</u></p> <ul style="list-style-type: none"> . If previous surveys of community occupations have been made, use this information to list jobs in home equipment, home furnishing, and homemaking education. Or make your own survey by having each student list the occupations of parents, relatives, neighbors, and friends in this occupational cluster. . Add to the poster information about duties, salaries, working conditions, and promotion possibilities. . Select one job and write description 	<p>Survey of occupations</p> <p><u>Occupational Outlook Handbook</u></p>

INSTRUCTIONAL

Behavioral Objective #3

- . In large classes divide the class into four groups and give each group a selection of appliances or products for each member to demonstrate. Instruction books that come with the appliances and labels can provide facts. Present demonstrations in small groups and select one (or two) for presentation to the large group.
- . Test (unless used earlier)

RESOURCES

Instruction books for appliances

Labels or product information from manufacturer

EVALUATION

In addition to the objective test used anytime during the unit, ask students to write about their demonstration presentation. Questions such as: "What is the most difficult part of giving a demonstration?" or "What makes a good demonstration?"

KEY

1. Appliance demonstrator
2. Interior decorator
3. Extension Home Economist
4. Utility Home Economist
5. Fabric salesperson
6. Comparison shopper
7. Realtor
8. Salesman
9. Moving and storage consultant
10. Home Economics Teacher

TEST

(May be used for PRETEST, MIDPOINT, or POST TEST)

Write the occupational title in the space to the left of the occupational description:

- | | |
|-------|-------------------------------------------------------------------------------------------|
| _____ | 1. Shows how to use and care for blenders, steam irons, electric skillets, etc. |
| _____ | 2. Selects and arranges furniture and accessories for a model home open house. |
| _____ | 3. Helps homemakers update their skills in foods, clothing, housing, etc. |
| _____ | 4. Advises on kitchen arrangement, home lighting, heating, and cooling. |
| _____ | 5. Estimates yardage for slipcovers and draperies; assists in choosing fabrics. |
| _____ | 6. Shops at several stores and records prices for use in competitive pricing by employer. |
| _____ | 7. Lists, shows, provides legal papers for sale of houses. |
| _____ | 8. Sells washers, dryers, ranges, refrigerators, freezers, etc. |
| _____ | 9. Plans moving and storage details, insurance, packing. |
| _____ | 10. Teaches human relationships, housing, food, clothing, child development. |

OCCUPATIONAL TITLES:

- | | |
|-------------------------------|------------------------|
| Comparison Shopper | Fabric Salesperson |
| Moving and Storage Consultant | Salesman |
| Interior Decorator | Realtor |
| Extension Home Economist | Utility Home Economist |
| Appliance Demonstrator | Home Economics Teacher |

UNIT 18: TEXTILE AND CLOTHING CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

1. The student will recognize the importance of textile and clothing industries by compiling a list of uses and bringing samples of textiles.
2. The student will compare traditional and modern methods of manufacturing textiles and wearing apparel in an effort to learn of developing occupational opportunities in the industry.
3. The student will explore area occupational opportunities in the textile and clothing industries by preparing a map showing location, kind of industry, and number employed.

INSTRUCTIONAL

RESOURCES

Behavioral Objective #1

- . Students will bring different kinds of fabrics that may be displayed on bulletin board. Use swatches in making mural on developing occupations in textile and wearing apparel.

Behavioral Objective #2

- . Discuss history of textiles as one of civilization's oldest industries; man's dependence on textiles to satisfy needs (protection, aesthetic, comfort); widespread use in modern life (industry, medicine, transportation, construction, mining, education, recreation, research).

Behavioral Objective #3

- . Prepare relief map of Arkansas. Use pins with different colored heads to represent kind of clothing or textile manufactured; make tiny flags (different shapes) of fabric to illustrate numbers employed. Show key to map. (Approximately 90 manufacturers in Arkansas)
- . Students will use hand loom to show different weaves. Finished squares could be combined for a wall hanging.
- . Using plaster of paris fabric form sculptures or plaques.

Project #1

Project #2

INSTRUCTIONAL

- . Use thread to make geometric pictures or ornaments with board, pins, or balloons and glue.
- . Make felt pictures
- . Make barbecue apron

ENRICHMENT:

- . Show slides of assembly line process in Arkansas factory - textile or clothing manufacturers.
- . Assign students the "Test Your Textile Knowledge" puzzle.

RESOURCES

Woman's Day
August 1971
pp. 65-72

House Beautiful
November 1970

Project #3

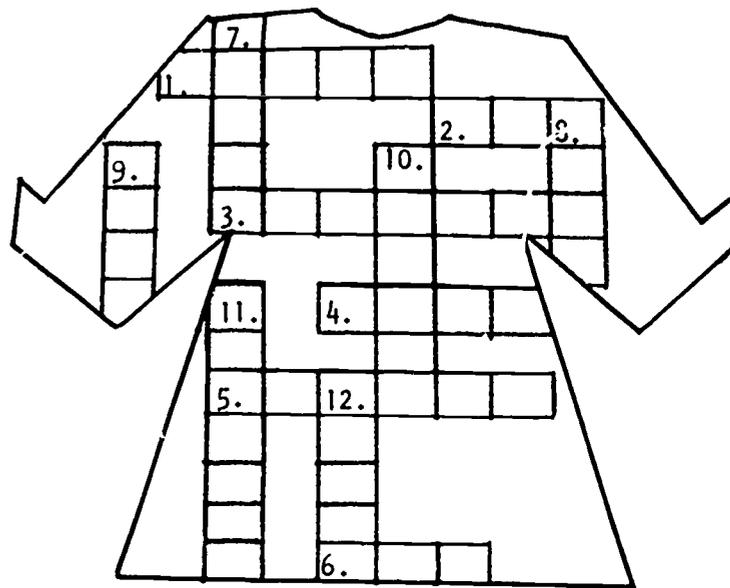
UNIT 18
Project #1



UNIT 18
Project #2

<u>PROJECT</u>	<u>MATERIALS</u>	<u>RESOURCES</u>
Felt wall hangings	Bright colored felt Burlap for background Invisible glue Designs (school emblems)	
String pictures	Cardboard Twine, thread Long-eyed large needle (string can be glued) Geometric design	<u>Woman's Day</u> August 1971 pp. 65-72
Sculptures	Plaster of Paris fabric (new fabric found at hobby shops) Water paint Acrylic or oil paints	
Aprons	Plastic material from building supply house. Use school colors.	

TEST YOUR TEXTILE KNOWLEDGE



ACROSS

1. Non-flammable, non-stretchable fiber
2. Touch or feel of a fabric
3. Permanent press or _____ press
4. Fabric with loops, cut or uncut, which stand up on surface
5. Most wool-like of any of the man-made fibers
6. Raised fabric surface created by brushing

DOWN

7. Yarn made from two or more fibers in spinning process is called _____
8. A clothing consideration when shopping
9. Result of fibers in fabric rolling up into balls on surface
10. Wise choices in shopping make for _____ satisfaction
11. Man-made fiber with stretch recovery
12. Oldest of the man-made fibers

EVALUATION

1-5 Choose the correct answer in the following statements:

1. In the garment workers industry 4 out of 5, 10, 20, 50 are women.
2. The first operation in garment making is: pressing, designing, cutting, sewing.
3. The textile industry has made its greatest achievements in the last 5, 10, 20, 50 years.
4. The American textile industry presently employs approximately 5,000; 100,000; 900,000; 1,000,000.
5. Which of the following textiles is a natural fiber? rayon, nylon, orlon, linen.

6-10 Match the textile product with its modern use:

- | | |
|------------------------------------------|---------------------------|
| 6. sails and pontoons | a. asbestos |
| 7. artists canvas | b. rayon yarns |
| 8. sleeping bags | c. nylon and dacron |
| 9. inside tires; dress fabrics | d. cotton |
| 10. auto brake linings; theater curtains | e. treated nylon and down |

11. Which of man's basic needs is provided by the textile industry?
12. Name five characteristics of modern textiles which were unknown a few years ago.

KEY

- | | | |
|--------------|-------|------------------|
| 1. 5 | 6. c | 12. stretch |
| 2. designing | 7. d | mildew resistant |
| 3. 20 | 8. e | fireproof |
| 4. 900,000 | 9. b | water repellent |
| 5. linen | 10. a | no iron |

KEY TO PROJECT 3, "TEST YOUR TEXTILE KNOWLEDGE"

- Across
1. glass
 2. hand
 3. durable
 4. pile
 5. acrylic
 6. nap

- Down
7. blend
 8. need
 9. pill
 10. family
 11. spandex
 12. rayon

UNIT 19: HEALTH SERVICE CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

1. The student will become aware of the wide range of occupations concerned with the health care of humans or animals in the fields of medicine, surgery, and dentistry, and in related patient-care areas, such as nursing, therapy, and rehabilitation, and can identify on a written test four out of ten of the many occupations that require licensing or registration.
2. The student will become familiar with the interview method of securing information by conducting an interview and reporting findings on a form provided by the teacher.
3. The student will realize that new job opportunities are constantly being added and require specialized training by listing four jobs requiring secondary health curriculum and on-the-job training and by listing four jobs requiring post-secondary programs that did not exist fifteen years ago.

INSTRUCTIONAL

Leaders in medicine and allied professions estimate that the nation will need more than 500,000 nurses, physicians, speech pathologists, medical social workers, and technologists in the next five to ten years.

Behavioral Objective #1

- . Class will work in committees to research and prepare wall charts listing occupations, type of work done, necessary personal qualities, educational requirements, and license or certification.
 - a. Secondary health curriculum and on-the-job training
 - Nurses Aide
 - Medical Assistant
 - Dental Assistant
 - Operating Room Technician
 - Delivery Room Technician
 - Electroencephalographic Technician (EEG)
 - Electrocardiographic Technician (EKG)
 - Radiologic Technician
 - Radiologic Technologist

RESOURCES

Transparency #1
Transparency #2
Transparency #3

Kinsinger, Robert E.,
Career Opportunities
Health Technicians

U.S. Department of
Labor, Job Guide for
Young Workers, pp. 22-30

INSTRUCTIONAL

b. Post Secondary Programs

Laboratory Technician
Medical Technologist
Mental Health Technician*
Physical Therapy Assistant*
Licensed Practical Nurse*
Registered Nurse*

*License required

- . Game: Name That Job; Divide class into two teams that will compete to name jobs needed in different situations: A three year old boy has swallowed some lye; five year old falls out of tree has arm and tooth broken; ten year old breaks leg for second time and is afraid he can't walk; ten year old has severe pain in right side; and child has been knocked unconscious in a fall from his bicycle.

Behavioral Objective #2

One source of information is an interview with persons trained and experienced in the occupation you wish to explore.

- . Interview persons who work in health service occupations and record findings.

Behavioral Objective #3

One kind of on-the-job task or duty is to take a blood sample. This is done by registered nurses, medical laboratory assistants, and medical assistants.

- . Students will type their blood
- . Listen to chest with stethoscope
- . Take blood pressure
- . Use thermometer to take temperature
- . Select one or more occupations for written report

ENRICHMENT

- . Have health occupations instructor demonstrate physical therapy on dummy; students may then perform therapy with the dummy.
- . Demonstrate maneuvering wheel chairs for student "patients."

RESOURCES

Form C

Red Cross, School Nurse, or Health Occupations Teacher will be able to assist.

Form A

Health Occupation Teacher

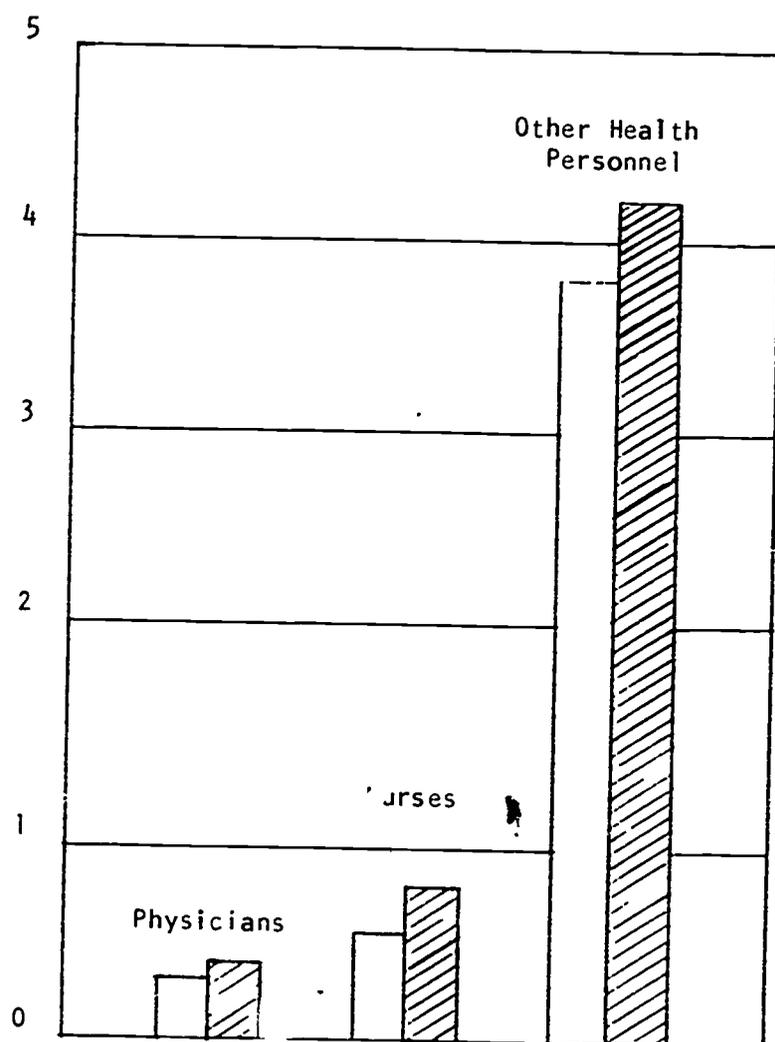
EVALUATION

1. Was the wall chart prepared by each group accurate, neat, have sufficient information, and did each member of the committee contribute information?
2. What were the students' comments after the interviews?
3. Did any students show unfavorable reactions to blood sample?
4. Test: List ten of the health service occupations. Students should write the four that require a license or registration.

UNIT 19
Transparency #1

HEALTH SERVICE JOB DEMAND IN STEEP CLIMB

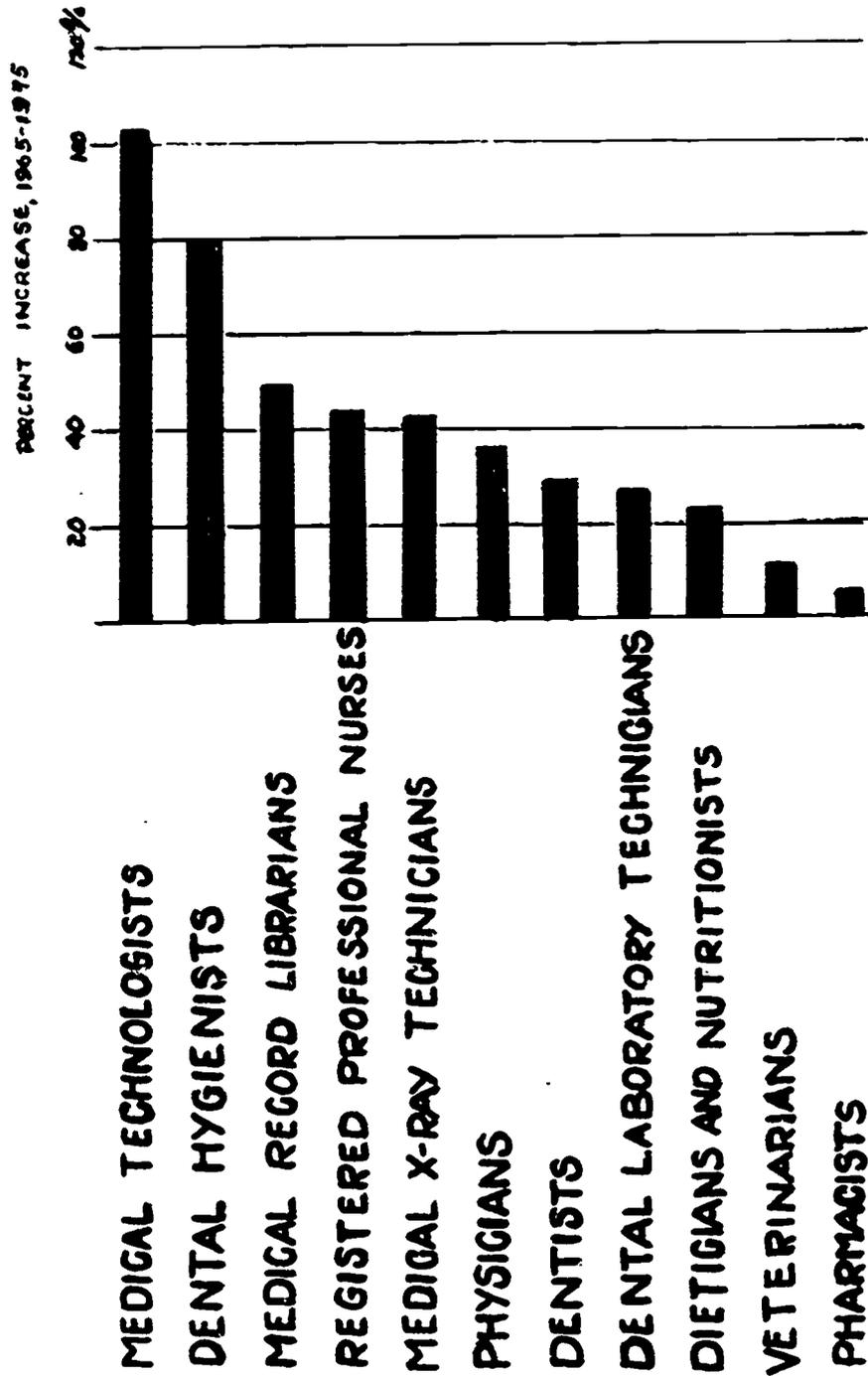
Millions



□ - Needed 1966

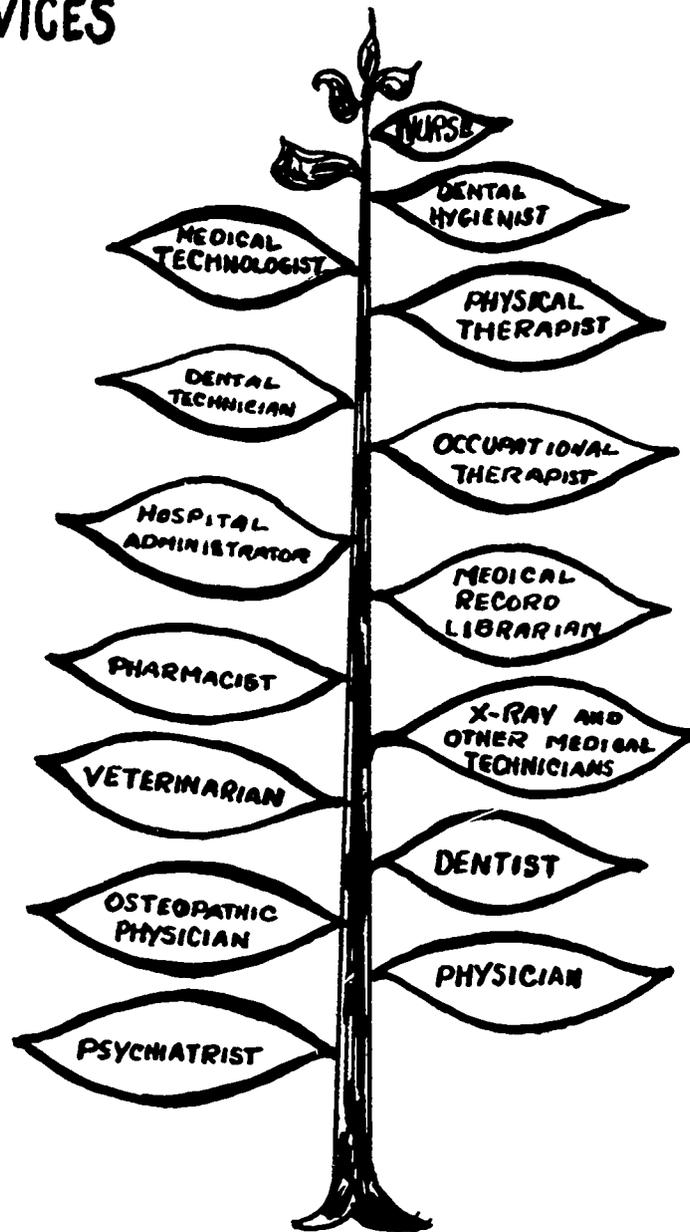
▨ - Needed 1975

GROWTH RATES IN HEALTH OCCUPATIONS WILL VARY WIDELY



U.S. DEPT. LABOR

MEDICINE AND HEALTH SERVICES



JOB TREE

UNIT 20: EXPLORING PUBLIC SERVICE CAREERS
(Suggested Time: Four Days)

Behavioral Objectives

1. The student will be able to answer fifteen of twenty true-false statements correctly about federal government occupations.
2. The student will be able to match on a test four of five benefits of Civil Service.
3. The student can identify people in the community in government service and can discuss the wide range of occupations and varied requirements of government service.

INSTRUCTIONAL

Behavioral Objective #1

- . Pretest: Use transparencies to present facts; student may correct and score paper.

Behavioral Objective #2 and #3

- . Invite speaker from Interagency Motor Pool or Civil Service Commission to tell about the use of government cars--who, where, when, emphasizing the different agencies eligible, other facets of their job. May also explain "Why Civil Service?"
- . Bulletin board: Civil Service exam announcement - Discuss general requirements for employment, list of eligibles, benefits, pay scale
- . Post Test

ENRICHMENT

- . Review job reports already prepared and list those employed by U.S. Government.

RESOURCES

Handout #1, Transparency #1 and #2, Occupational Outlook Handbook, pp. 595-602, Encyclopedia of Careers, pp. 273-284

Form C

Civil Service Announcement, Regional Office (Free)

EVALUATION

1. Why do we have the Civil Service System?
2. When are Civil Service examinations given?
3. Are the examinations always written?
4. What is a "list of eligibles?"
5. Does discrimination influence selection?
6. What general requirements must be met, such as age, education, citizenship, and physical?
7. What are the advantages and disadvantages of government service occupations?

PRETEST AND/OR POST TEST

On a blank sheet of paper, write the numbers one to twenty. Read each of the following statements and indicate on your answer sheet whether you believe each statement to be true or false.

1. Government service employs about one out of fifteen persons employed in the United States.
2. More than three-fourths of these workers are employed by state or local governments.
3. Jobs for government employees are found not only in capital cities, county seats, and metropolitan areas, but also in small towns and villages, and even in remote and isolated places such as lighthouse installations and forest ranger stations.
4. More than a third of all government workers are engaged in providing educational services; the majority are in schools and colleges supported by state and local governments.
5. The largest group of government workers is engaged in national defense activities.
6. Government occupations do not require many different levels of education, training, and skill.
7. The largest employer in the United States is the federal government.
8. Entrance requirements for white-collar jobs vary widely.
9. Federal employees are not stationed in foreign countries.
10. Approximately nine out of ten jobs in the federal government in the United States are covered by the Civil Service Act.
11. The Civil Service Act was passed by the Congress to ensure that federal employees are hired on the basis of individual merit and fitness.
12. Civil service competitive examinations may be taken by some persons who are citizens of the United States.
13. To be eligible for appointment, an applicant must meet minimum age, training, and experience requirements for the particular position.
14. Appointments to civil service jobs are made with regard to an applicant's race, color, religion, national origin, politics, or sex.
15. Federal civilian employees are paid under several pay systems.

UNIT 20
Handout #1, cont.

16. Pay rates of employees under the General Schedule are set by Congress and are local.
17. High school graduates with no related work experience are usually appointed to GS-2 positions.
18. Advancement depends upon ability, work performance, and generally, upon openings in jobs at higher grades.
19. Craft, service, and manual workers employed by the federal government are paid under the wage board system.
20. The standard work week for federal government employees is fifty hours.

Answers:

- | | | | |
|------|-------|-------|-------|
| 1. F | 6. F | 11. T | 16. F |
| 2. T | 7. T | 12. F | 17. T |
| 3. T | 8. T | 13. T | 18. T |
| 4. T | 9. F | 14. F | 19. T |
| 5. F | 10. T | 15. T | 20. F |

In the space before each benefit write the letter of the Civil Service Standard.

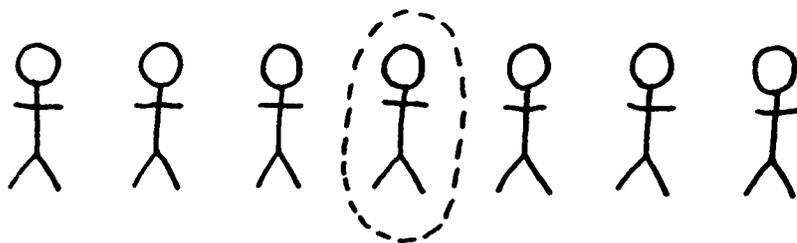
- | | |
|---------------|--------------------------------------------------------------------------------|
| _____ 8 days | a. paid work days each year for active duty if member of military reserve unit |
| _____ 13 days | b. days annual sick leave |
| _____ 15 days | c. days annual leave after 15 years |
| _____ 20 days | d. paid holidays each year |
| _____ 26 days | e. days annual leave after 3 years and up to 15 years |

KEY

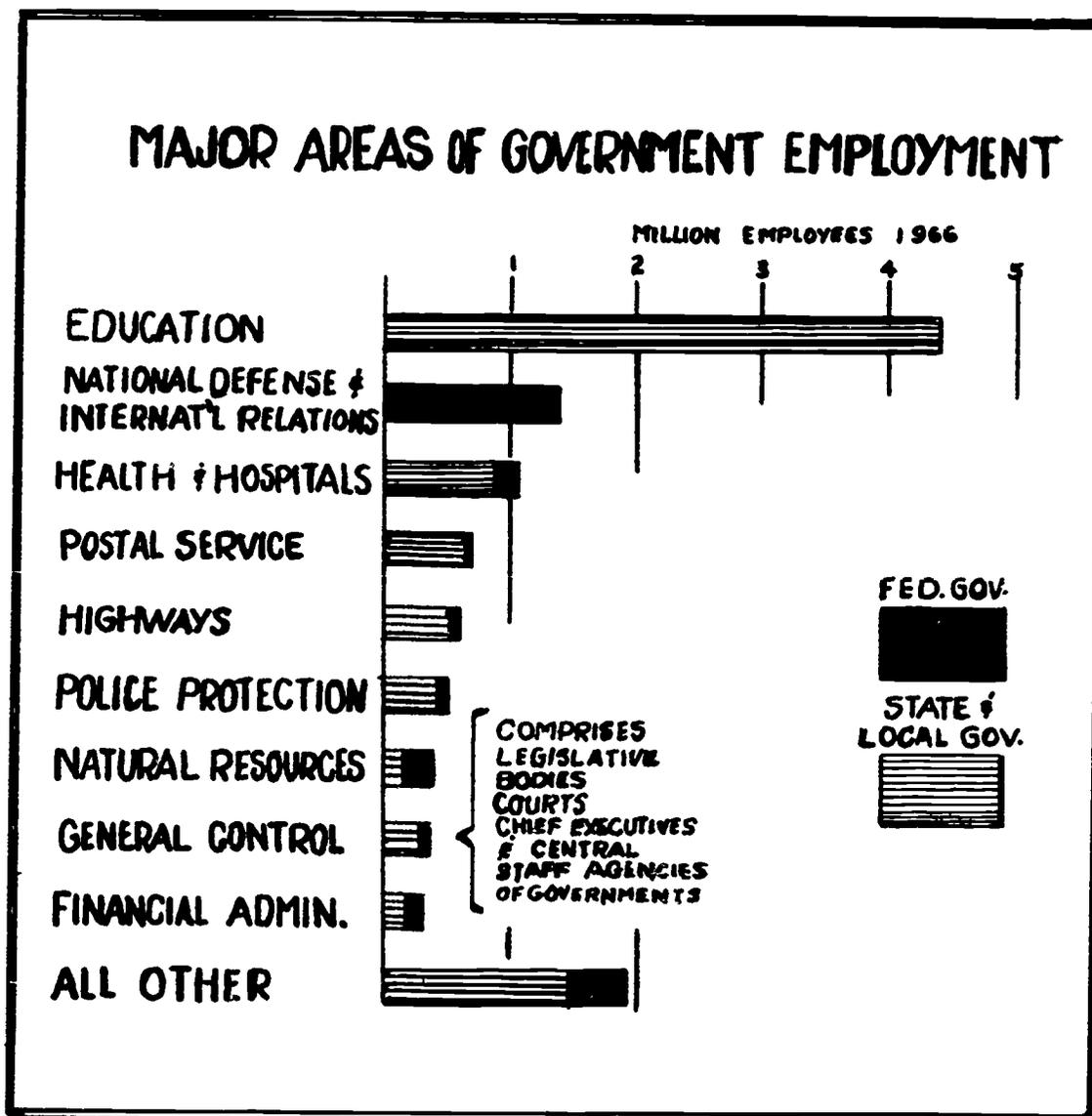
d, b, a, e, c

UNIT 20
Transparency #1

SOME FEDERAL JOBS NOT UNDER CIVIL SERVICE
FOREIGN SERVICE OF THE DEPARTMENT OR STATE
DEPARTMENT OF MEDICINE AND SURGERY OF THE
VETERAN'S ADMINISTRATION
FEDERAL BUREAU OF INVESTIGATION
ATOMIC ENERGY COMMISSION
TENNESSEE VALLEY AUTHORITY



GOVERNMENT EMPLOYS 1 OUT OF 7 WORKERS



UNIT 21: SOCIAL AND PROTECTIVE SERVICE CAREERS
(Suggested Time: Four Days)

Behavioral Objectives

1. The student will explore at least one occupation concerned with performing tasks in and around private households; serving individuals in institutions and in commercial and other establishments; and protecting the public against crime, fire, and accidents.
2. The student will compare costs of homeowner's property insurance for communities with fire and police protection and for those without protection to develop appreciation for these services.
3. The student will recognize that service occupations may be essential to the daily operation of a business by listing service jobs that must be done.
4. The student will be able to name at least two major problems arising out of increased number of women in work force and to choose three of five acceptable solutions on a test.
5. The student will consider the possibility of service occupations for summer employment, part-time work, and occupations for which they may obtain educational and entry-level skills by listing any occupations for which they now qualify.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<p><u>Behavioral Objective #1</u></p> <ul style="list-style-type: none"> • List jobs, qualifications, training, wages, hours, and employment opportunities for: <ol style="list-style-type: none"> (1) private household workers (2) building cleaning and servicing occupations (3) protective service workers Class should work in three groups to make mini-folders for each job. • Students will select one or more occupations to explore and make written report. 	<p><u>Occupational Outlook Handbook</u> reprints Transparency #1 and #2</p> <p>Form A</p>
<p><u>Behavioral Objective #2</u></p> <ul style="list-style-type: none"> • Assign three or four students to research costs of casualty insurance for property located away from police and fire protection as compared to property having this protection. 	<p>Insurance Underwriters from several companies</p>

INSTRUCTIONAL

- . Invite speakers from the local or state police departments, fire department, or F.B.I. to tell about their jobs.
- . Invite director or member of custodial staff of school or industry to tell about his job.

Behavioral Objective #3

- . List service jobs in a business and determine which must be performed so that the building will be a clean and comfortable place in which to work.

Behavioral Objective #4

- . Students choose one assignment to research:
 - (a) cost of child care (by hour, day, week, or month)
 - (b) advantages of private and public care
 - (c) desirable personality traits of child care workers
- . Students prepare transparency showing findings in above research and report to class

Behavioral Objective #5

- . Students interview parents and/or neighbors to determine household tasks for which help is needed and wages they are willing to pay to have these jobs done.

Check (x) those jobs which an eighth grade student could perform.

Double check (xx) any jobs which have already been done for pay by the student.

Triple check (xxx) those jobs which could be a continuing source of income while attending school.

- . Test on child care

RESOURCES

Give students and speakers Form B.
Prepare students to listen.

Speakers should be invited several days in advance of the time they are to speak.

Transparency #3

Transparency to be prepared by students

Evaluation

INSTRUCTIONAL

RESOURCES

ENRICHMENT

- . Learn facility requirements for licensing child care facilities in Arkansas.
- . Investigate services offered locally for cleaning homes or businesses.

Employment section of newspapers; yellow pages of phone directory

VOCABULARY

kindergarten
nursery school
char woman

porter
janitor
butler

governess
day care center
custodian

consideration
courtesy
dependability

EVALUATION

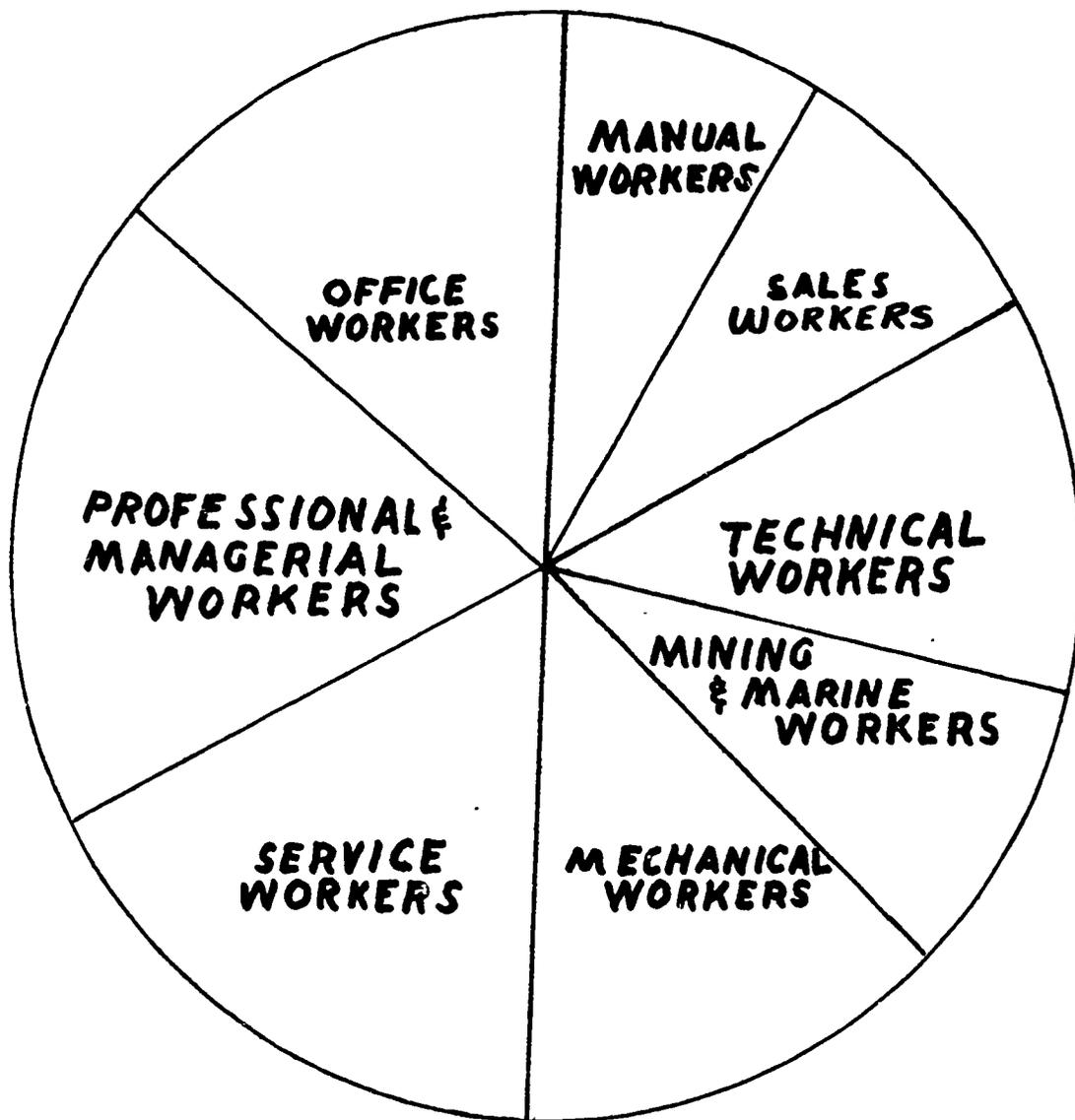
Write the number of the problem before the most acceptable solution.

- | | |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| ___ O.E.O. Day Care Center | 1. Widow lives 1,000 miles from family; has a child, age 2, and must work from 3 p.m. until 12 p.m. |
| ___ Private nursery school | 2. Young mother living in Highland Court has children ages 1 and 4 years, works from 8 a.m. to 4 p.m. at supermarket |
| ___ Public school kindergarten | 3. Mother employed as secretary from 9 a.m. to 12 noon in suburban area near house; has child age 3 years (needs half-day care) |
| ___ Relative | 4. Mother with child age 5 years is full time homemaker; has car for personal use |
| ___ Babysitter | 5. Mother of infant age 3 months needs free time occasionally for shopping, dental appointments, lunch with friends |

KEY

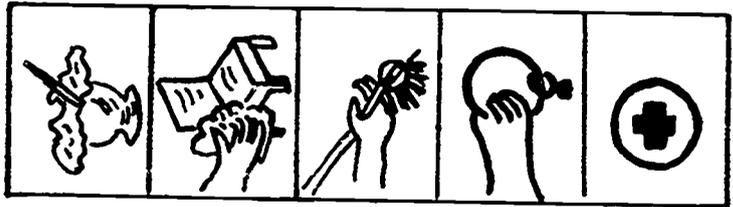
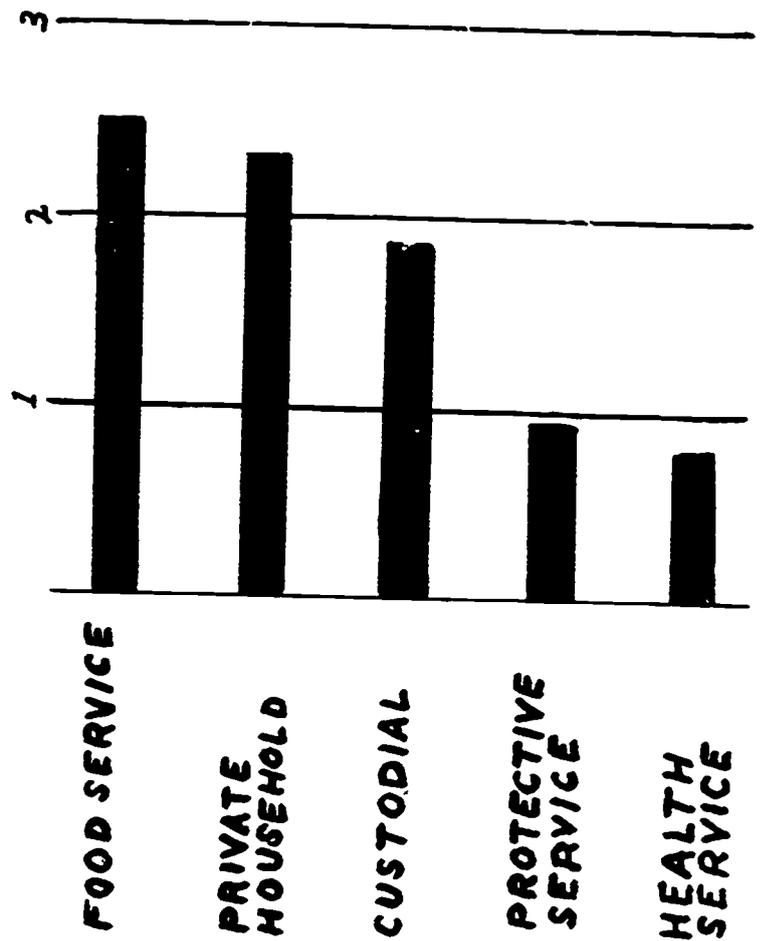
2, 3, 4, 5, 1

DISTRIBUTION OF EMPLOYED PERSONS ACCORDING TO OCCUPATIONAL FAMILIES



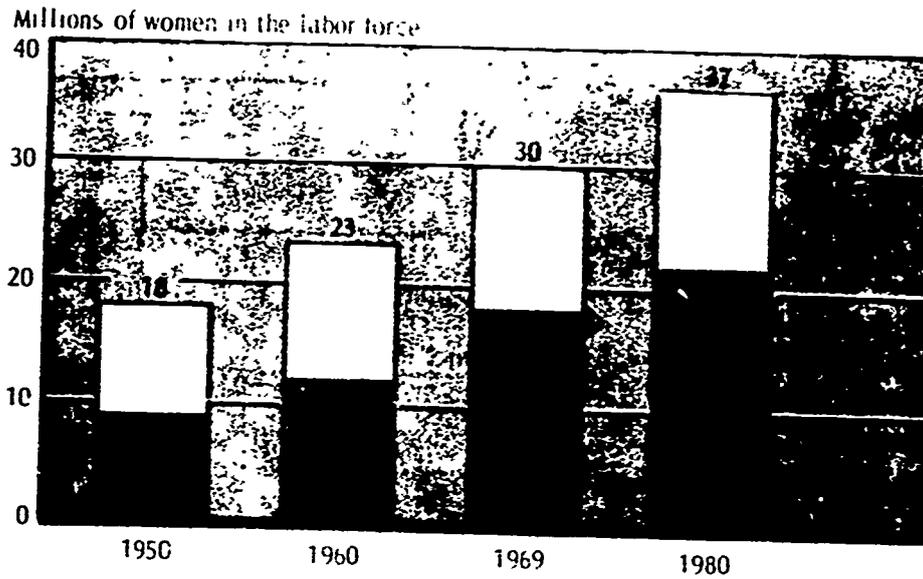
MORE THAN 9 MILLION PEOPLE WORKED IN SERVICE OCCUPATIONS

MILLIONS OF WORKERS 1965

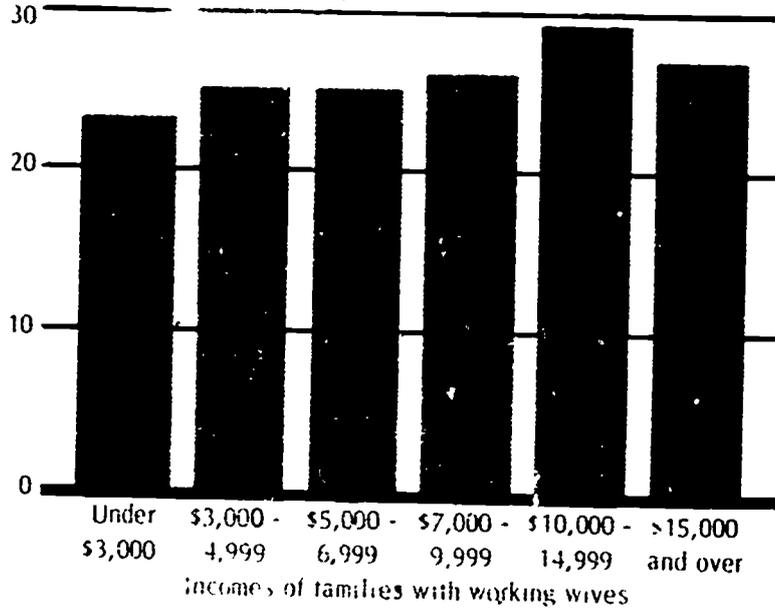


U.S. LABOR Dept.

The increasing number of working women underscores the need for day care, continuing training and part-time employment



Median percent of family income contributed by wives' earnings - 1968



U.S. LABOR Dept.

UNIT 22: EXPLORING PERSONAL SERVICE CAREERS
(Suggested Time: Three Days)

Behavioral Objective

1. Students will explore occupations that render service to the individual and will be able to identify the type of work done by matching occupations and job descriptions on a written test at the end of the unit.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<u>Behavioral Objective #1</u>	
<ul style="list-style-type: none">. Discuss personal service occupations. List jobs on transparency, poster, flannel or chalkboard. After class has named jobs they know, give sheet listing others.	Handout #1
<ul style="list-style-type: none">. Use a trial test at the end of the period or the following day to ask students to recall jobs. Give job tree to be completed by the student. Allow time and then have students exchange papers and compare with class list of jobs. Count correct responses. Return papers.	Handout #2
<ul style="list-style-type: none">. Select one occupation for a written report. Review with students the standards for written work. Provide reference materials. (Department of Labor folders, <u>Occupational Outlook Handbook</u>, or card file) Encourage students to talk with people working at these jobs. A suggested outline may be useful for some classes: Who? Qualifications of worker What? Description of work Where? Location of employment When? Conditions for work Why? Advantages of job	
<ul style="list-style-type: none">. Allow two days to prepare report.	
<ul style="list-style-type: none">. Role play customer-employee situations showing different ways people respond. Explain a situation to the class and select or use volunteers for the roles. Instructions may be given as to how to play the character for the first scene. These may be typed on small cards. The same players could then repeat	

INSTRUCTIONAL

the scene reacting a different way. The class may suggest other situations. Follow-up discussion should further note that a pleasant attitude and disposition are qualities to be desired and valued by employers.

- Persons in the community who are employed in personal service occupations may be invited to speak to the class.

RESOURCES

EVALUATION

Give the matching test. Score written reports.

KEY: 1 - Stewardess, 2 - Barber, 3 - Bellman, 4 - Policemen and Women,
5 - Beauty Operator, 6 - Catering Service, 7 - Chef, 8 - Hotel House-
keeper, 9 - Practical Nurse, 10 - Masseur, 11 - Tailor, 12 - Waiter and
Waitress

PERSONAL SERVICE CAREERS

The personal service occupations comprise a very large part of our occupational group. Persons in these jobs provide services that add to personal comfort. These occupations may also serve as a hobby and as a very profitable part-time job.

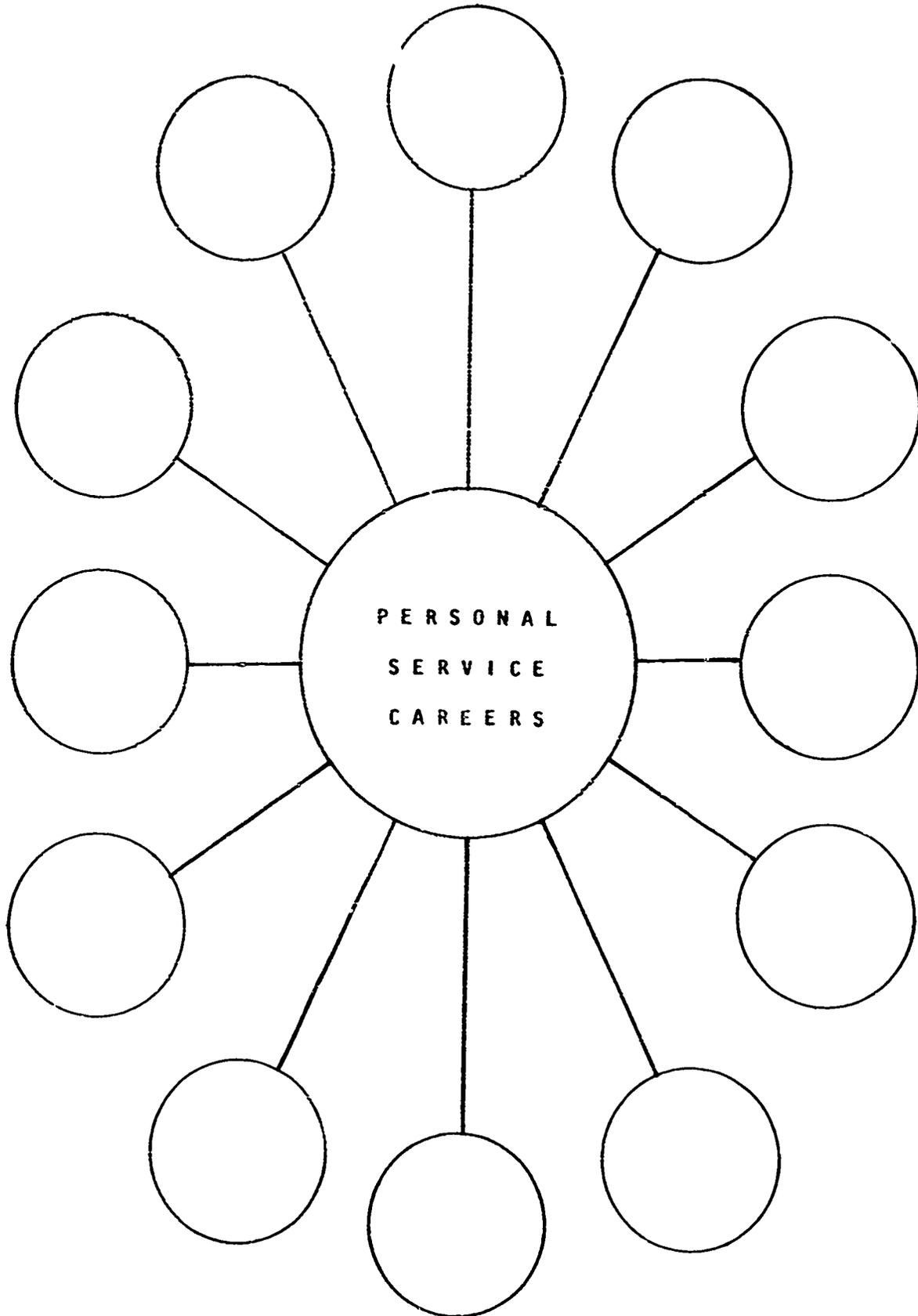
Individuals interested in service occupations should realize that although employers may not require a high school or college education, it is considered a distinct personal asset to obtain as much education possible.

Persons interested in personal services should realize that the ability to think and reason logically, to use sound judgment and to remain calm in an emergency may be vital factors; however, it must be remembered that honesty, loyalty, dependability, and a pleasant attitude and disposition are qualities to be desired and valued by employers.

Listed below are some Personal Service Careers.

1. Barber
2. Beauty Operator
3. Bellman and Bell Captains
4. Cooks and Chefs
5. Hotel Housekeepers and Assistants
6. Policemen and Policewomen
7. Practical Nurse and Auxiliary Nursing Workers
8. Stewardess
9. Waiter and Waitress
10. Tailor
11. Child Care Services
12. Caterer

EXPLORING PERSONAL SERVICE CAREERS



EVALUATION

On the left of this sheet is a list of personal service occupations. Match the occupation with the description on the right.

- | | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ___ Masseur | 1. Attends to comfort and enjoyment of airline passengers. |
| ___ Catering Service | 2. Services are performed primarily for male customers. |
| ___ Barber Service | 3. Sometimes called "bell hop," carries luggage and performs a variety of services for the guests. |
| ___ Beauty Operator | 4. Employed in protective services. |
| ___ Bellman | 5. Often called cosmetologist or beautician. |
| ___ Chef | 6. Prepares and serves food for special occasions. |
| ___ Hotel Housekeeper | 7. Employed in the preparation and cooking of food, usually in large quantities. Responsible for the supervision and overseeing of cooks and kitchen helpers. |
| ___ Policemen & Women | 8. Responsible for the assistants such as maids, housemen, and other employees. |
| ___ Tailor | 9. Works under direct supervision of professionally trained personnel, assists in care and treatment of ill persons. |
| ___ Waiter & Waitress | 10. Administers body-conditioning treatments for hygienic or remedial purposes. |
| ___ Practical Nurse | 11. Makes clothing to order, performs alterations, supervises other garment workers. |
| ___ Stewardess | 12. Takes orders for and serves food and beverages and makes out customers' food checks. |

UNIT 23: PROFESSIONAL AND MANAGERIAL CAREERS
(Suggested Time: Three Days)

Behavioral Objectives

1. The student will recognize that professional and technical occupations require the most educational preparation by writing a report on one occupation.
2. On a test, the student can match 3 of 5 professional occupations to the personal traits needed for success.
3. On a test the student can match 5 of 10 names of well-known professional people with their occupations.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<u>Behavioral Objective #1</u>	
The fastest growing occupations in the 70's as in the 60's are professional and technical ones. This occupational group will increase by 50 percent by 1980.	Transparency #1 Transparency #2 Transparency #3
. Student will write report on a professional or technical occupation.	Form A
. Assign 12 groups to plan and prepare one page each of a flip chart showing names or pictures or activities of people who are outstanding in these different fields:	
00,01 <u>Architecture & Engineering</u> architects, engineers, draftsmen, surveyors	D.O.T. Vol. II pp. 3-6
02 <u>Mathematics & Physical Sciences</u> mathematicians, chemists, geologists, astronomers, physicist, meteorologist	
04 <u>Life Sciences</u> agricultural scientist, psychologist, biological scientist	
05 <u>Social Sciences</u> economist, historian, anthropologist, political scientist, sociologist	
07 <u>Medicine & Health</u> physicians & surgeons, dentists, pharmacists, dietitians, osteopaths, veterinarians, registered nurses, medical and dental technologists	

INSTRUCTIONAL

- 09 Education
college and university teachers,
secondary, primary, kindergarten,
handicapped, home economist, voca-
tional educators
- 11 Law & Jurisprudence
lawyers, judges
- 12 Religion & Theology
clergymen, educational directors
- 15 Entertainment & Recreation
dramatics, music, dancing,
athletics & sports
- 16 Administrative Specialities
accountants, auditors, purchasing
agents, public relations, budget
and management analysis, sales
managers
- 18 Managers & Officials
agriculture, forestry & fishing
managers, manufacturers, real
estate, finance, insurance, mining,
construction
- 19 Miscellaneous
agents, appraisers, radio operators,
sound recording, social & welfare
work, airplane pilots & navigators,
ship captains, railroad conductors.

- . Game: Name A Person - Teacher will select occu-
pations from work prepared by students.
Divide class into teams. Name occupation
and credit team for correct answer.

Behavioral Objective #2

- . Discuss personal traits needed for success in the
professions. Illustrate with people listed in
student flip chart.
- . Discuss how interests are related to choice of
occupation.

Behavioral Objective #3

- . Add to names of well-known people in profes-
sional occupations.

RESOURCES

Career Opportunities
New York Life Insur-
ance Company

Transparency #4

Handout #1
D.O.T. Vol. 11
p. 654

INSTRUCTIONAL

ENRICHMENT:

- Investigate and list abilities for several jobs.
- Investigate and list educational requirements for several jobs.

RESOURCES

EVALUATION

Write the letter of the interests that match the occupations in the blank at the left:

- | | |
|-------------------|---------------------------------------------------------------------------------|
| ___ 1. Accountant | A. Likes business contact with people, prestige |
| ___ 2. Engineer | B. Likes dealing with people and the communication of ideas |
| ___ 3. Nurse | C. Likes dealing with things in relation to processes and techniques |
| ___ 4. Teacher | D. Likes to work with people for their presumed good |
| ___ 5. Manager | E. Likes scientific and technical activities of an abstract and creative nature |

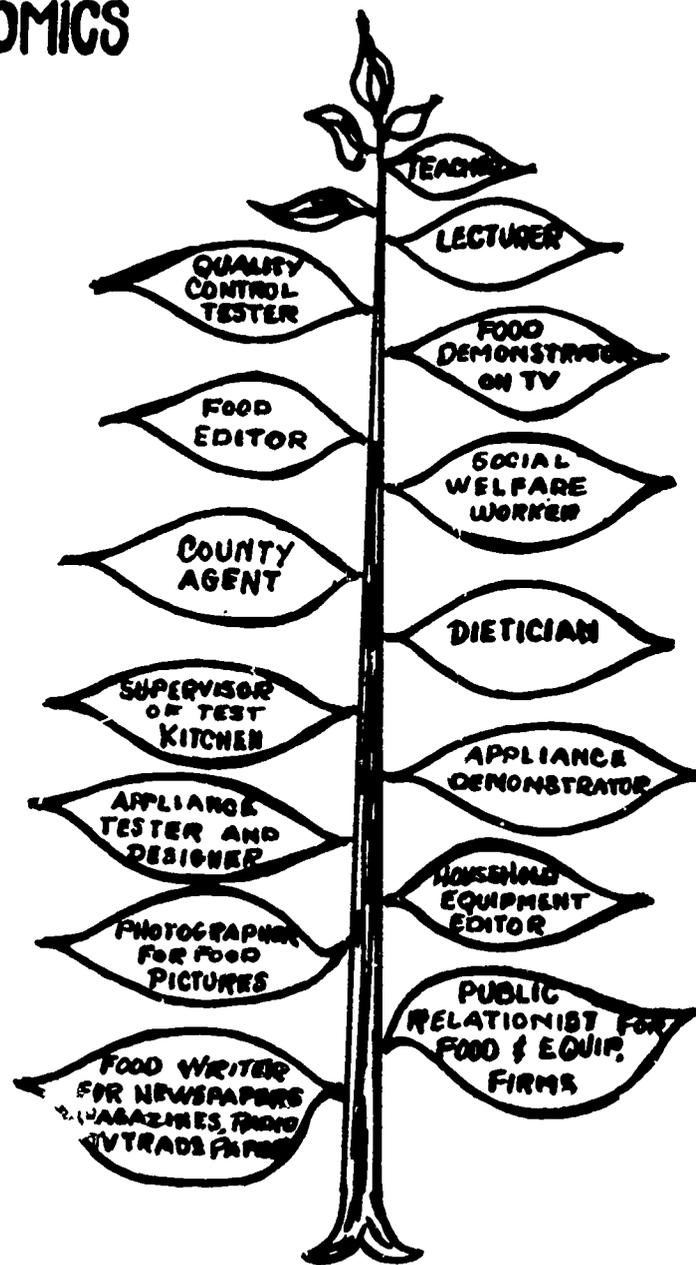
Write the letter of the person that matches the occupation in the blank at the left:

- | | | |
|--------------------|-------------------------|-------------------------|
| ___ 6. Architect | A. Margaret Mead | F. Booker T. Washington |
| ___ 7. Clergyman | B. Denton Cooley | G. Florence Nightingale |
| ___ 8. Entertainer | C. Earl Warren | H. Frank Lloyd Wright |
| ___ 9. Surgeon | D. Norman Vincent Peale | I. Dwight Eisenhower |
| ___ 10. Educator | E. Albert Einstein | J. Bill Cosby |

KEY

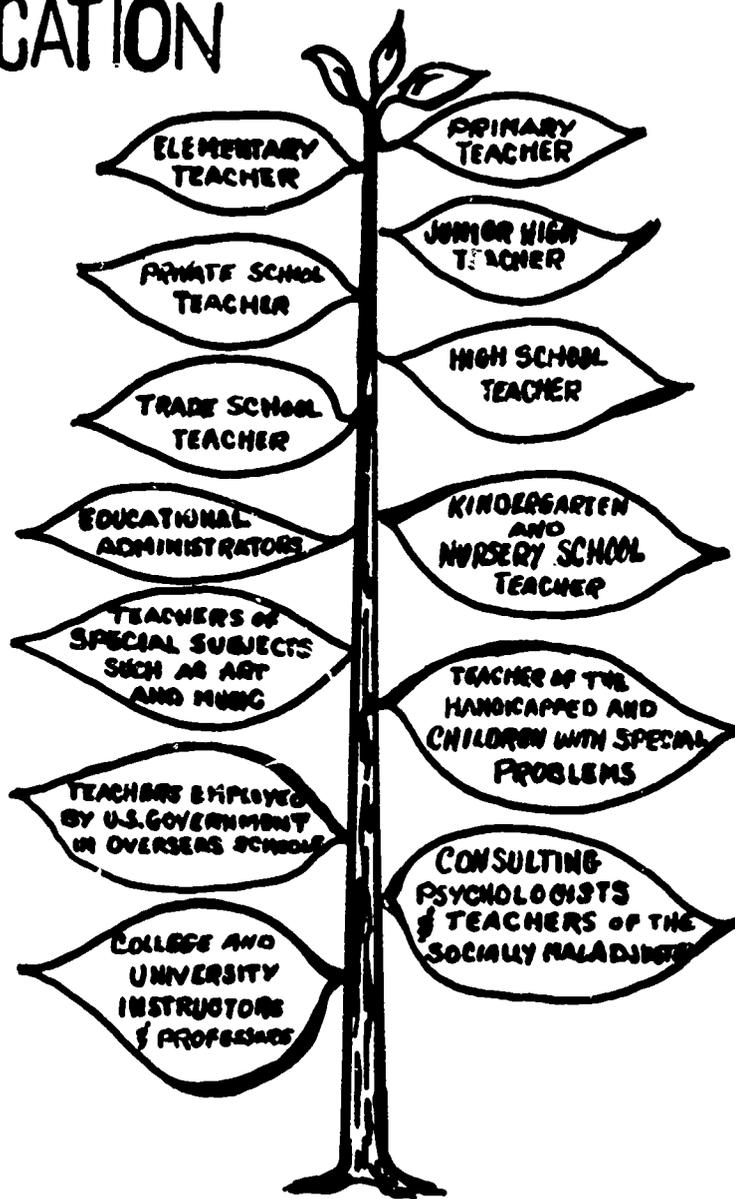
- | | |
|------|-------|
| 1. C | 6. H |
| 2. E | 7. D |
| 3. A | 8. J |
| 4. D | 9. B |
| 5. B | 10. F |

HOME ECONOMICS



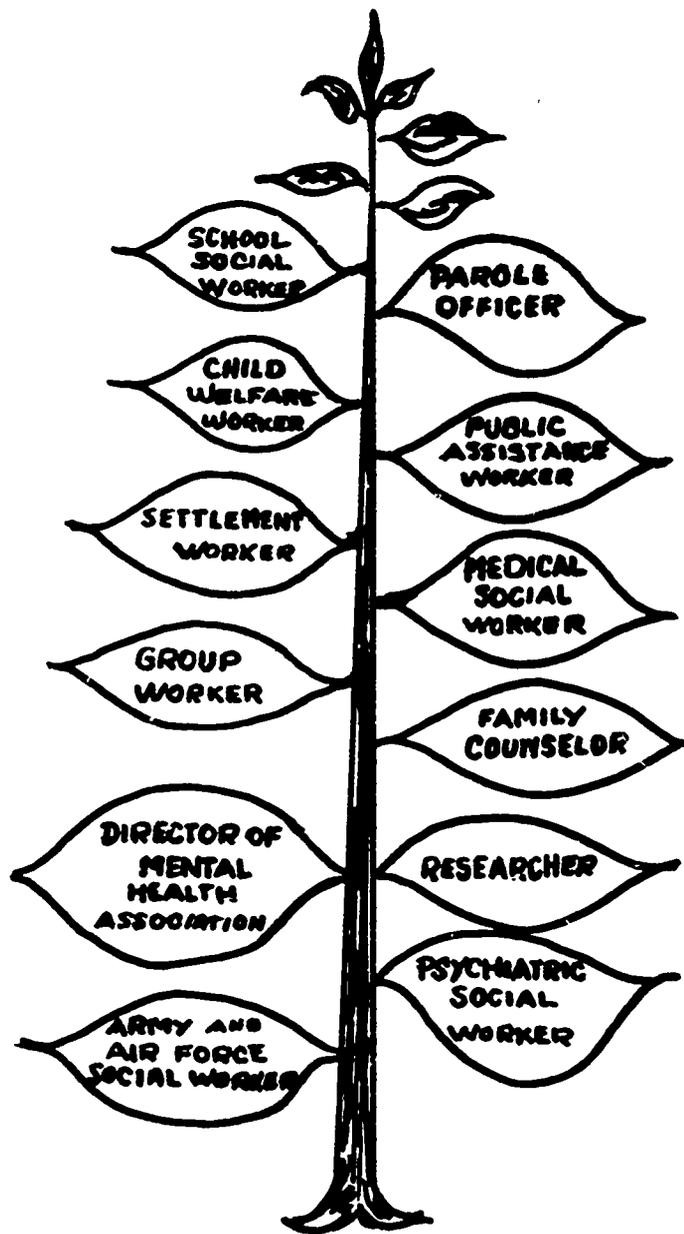
JOB TREE

TEACHING AND EDUCATION



JOB TREE

SOCIAL WORK



JOB TREE



**IF I WERE EMPLOYED BY A CONCERN I WOULD
PREFER TO WORK:**

ENTIRELY BY MYSELF • 4%

MOSTLY BY MYSELF BUT
WITH A FEW CONTACTS
WITH OTHER EMPLOYEES • 26%

WITH A SMALL GROUP
OF WORKERS • 58%

AS A MEMBER OF A
LARGE GROUP OF WORKERS • 8%

NO RESPONSE • 4%

UNIT 23 - Handout #1

Interests are not the same as abilities. Interests are things you like to do. You should choose a job that combines many of the things you enjoy doing with things you do well. Abilities are things you do well. Both are important for success on the job. Here are some examples of professional occupations that have certain interests:

ACCOUNTANT

Likes dealing with things and objects of a scientific and technical nature that are carried on in relation to processes, machines, and techniques.

ENGINEER

Likes scientific and technical activities of an abstract and creative nature.

LAWYER

Likes prestige, people, and the communication of ideas, abstract and creative activities.

MANAGER

Likes business contact with people of a routine, concrete, organized nature, resulting in prestige.

NURSE

Likes to work for people for their presumed good, work of a scientific and technical nature; concerned with people and the communication of ideas.

SURGEON

Likes working for people for their presumed good, prestige and the esteem of others, activities of a scientific and technical nature.

TEACHER

Likes dealing with people and language in social situations, the esteem of others, concerned with people and the communication of ideas.

INSTRUCTIONAL

- Teacher will plan further activities as needed by class. Field trips to local historical sites, museums, or performance of a concert or play may be appropriate. Color slides are available from local travelers and commercially of famous sculpture, architecture, and paintings. An advertising agency, commercial art business, or newspaper may provide speaker or tour.

RESOURCES

- Field trips during class or Saturday
- Color slides
- Guest speakers

EVALUATION

1. Which activities would be a pleasant way to spend leisure time?
2. Name ways these careers influence your daily living.
3. Have you ever been paid or expect to someday earn money for art or craft work?

PROJECT 1 - Sculpture

Bill of Materials

1. Modeling clay
2. Water colors
3. Brushes
4. Old newspapers
5. Flour paste

Flour Paste

1 cup unsifted flour
3/4 cup water

Mix well. The paste should be the consistency of a thin batter.

Procedure

Interested pupils shape the face of a classmate, using clay. Tear newspapers into small strips 1" X 6". Dip strips one at a time into flour paste. Apply to clay form, one layer at a time. Allow each layer to dry before adding another. Apply seven layers. Let dry. When dry, remove the clay form and color face. (Clay can be used over and over.)

PROJECT 2 - Textile Designer

Bill of Materials

1. Drawing paper/tracing paper
2. Coloring crayons
3. Pencil

Procedure

Pupils are instructed to let their minds wander--scribble a design on paper (abstract). Color all inner circles using the colors that they so desire. Frame, using a border of white construction paper. Post on bulletin board. Tracing paper may be folded in quarters and the same design repeated on each section.

PROJECT 3 - Advertising Artist or Cartoonist

Bill of Materials

1. Drawing paper
2. Pencil
3. Color crayon (if desired)

Procedure

Original ideas are to be encouraged here. Interested students are to develop a design and write a corresponding slogan advertising some household product or equipment.

- A. Decide on a slogan.
 - B. Develop a design.
 - C. Color if desired.
 - D. Post on bulletin board.
-

PROJECT 4 - Musician

Bill of Materials

1. Phonograph records
2. Musical instruments of class members
3. Music paper
4. Pencil

Procedure

Pupils selecting this project may choose records appropriate for a poem or story from their literature book or may choose to contribute to a composition of their own. The rest of the class may be interested in the finished performance.

PROJECT 5 - Curator

Bill of Materials

1. Collection (from class members)
2. Labels
3. File cards

Procedure

Items will need to be labeled, listed on cards with pertinent information, and cataloged. Display may be arranged.

PROJECT 6 - Interior Decorator

Bill of Materials

1. Cardboard box (for room)
2. Cardboard from candy boxes
3. Swatches of fabric
4. Glue
5. Crayons or water colors

Procedure

Decide on the following and initiate:

1. A room to be developed
2. Furniture to be used
3. Colors and textures of fabrics to be used
4. Size of family and interests
5. Shape outside of room (be original) cut windows and doors.
6. Color inside, using crayons or water colors or cover with fabric
7. Cut out and cover furniture. Place in room.
8. Evaluate project

UNIT 25: MANAGEMENT OF MONEY, TIME, CREDIT, AND BUSINESS RECORDS
(Suggested Time: Five Days)

Behavioral Objectives

1. The student will apply managerial ability to solve four problems similar to those he knows from eight case studies provided by the teacher.
2. The student will realize the importance of planning to successful money management by viewing and discussing film and spending survey.
3. The student can complete 10 to 12 statements about bank checking accounts and savings accounts.
4. The student will keep a record of how he spends 24 hours and will compare his record with others in the class and will make a plan for a similar day.
5. The student will, after presentation of credit problems, be able to write a guideline for preventing the problem.
6. The student can identify the best place to keep 20 of 26 papers important to family records.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<p><u>Behavioral Objective #1</u></p> <p>MANAGEMENT</p> <p>Use file cards to present case studies similar to students' background and money problems. There should be about eight. For large classes you may make several copies of each study. Student will determine best solutions, write his answers on his own paper, and pass card to next student.</p>	<p>Case studies to be typed on file cards</p>
<p><u>Behavioral Objective #2</u></p> <p>SPENDING</p> <p>Film: "Personal Financial Planning" loaned without charge 11 minute, 16mm motion color film with Teacher's Study Guide</p>	<p>Association Films, Incorporated 1621 Dragon Street Dallas, Texas 75207</p>

INSTRUCTIONAL

"The Big House"

The Stone family is buying the house of their dreams. Monthly payments and other expenses are so high there is no money for movies, clothes, vacations, and many other things they bought when they lived in the old house.

Suggested guideline: Cost of a house should not be more than 2 - 2 1/2 times assured yearly income. Income of working wife is not usually counted because she may stop working.

"Family in the Dark"

When the Powell family returned home the electricity was off. They had forgotten to pay the bill. They began to figure how much they could save and what they could buy with that much money if they paid the net amount on all utility bills for a year.

Suggested guideline: Putting off bill paying will cost money and convenience.

"Family Fight"

The Jones family bought a new color T.V. on the installment plan hoping it would be good entertainment for all. The older children wanted one show and each younger child wanted different programs. Mr. Jones got mad and bought two more color sets. Then the family couldn't pay all the bills on time and bill collectors began to come to the house.

Suggested guideline: The family should understand what their limits are and cheerfully try to live within their income.

Behavioral Objective #6

RECORDS

- Bulletin board of legal papers (or facsimile)
Discuss: What papers do families need to keep?
Where are good places to keep these papers?

ENRICHMENT

Discuss deductions from gross salary, fixed expenses, spendable income, and fringe benefits.

RESOURCES

INSTRUCTIONAL

- . Money must be available to be managed. If you had \$100 how would you spend it? Analyze answers to show that goals and values determine how you spend money.

Behavioral Objective #3

BANKING

- . If you had \$100 where would you keep it? Discuss kinds of bank checking accounts. Show checks, statement, check record, and savings passbook. Explain advantages, responsibilities and costs of banking.

Behavioral Objective #4

TIME

- . Student will keep a log for 24 hours telling how time was spent. After class discussion he will plan a day using his time to best advantage.

Behavioral Objective #5

CREDIT

- . Students will work in small groups to present skits showing credit problems. Each group should prepare a strip for the chart giving a guideline for how to prevent credit problems.

"The Repossessed Car"

The Murray family buys everything on time. There is a payment due almost every day! They have now discovered there is not enough money to make all the payments and their car has been repossessed.

Suggested guideline: Monthly installment debt should not be more than 13 percent of yearly take-home pay.

RESOURCES

Local banks may have a speaker, or supply sample materials.

Chart or Poster:
Use strips of paper or poster board and markers. Students will prepare and add to chart after presentation of skit.

INSTRUCTIONAL

Report on different aspects of time:
psychological, public, biological, evolutionary,
astronomical

RESOURCES

The Riddle of Time
Bell

VOCABULARY

interest
investment
saving
profit

credit
installment
budget

deposit
calendar
bonds

stocks
shares
dividend

EVALUATION

Check those papers which should be kept for family records in the home (x) and those which should be kept in the bank (xx).

- | | |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. ___ assessment of property | 16. ___ marriage licenses |
| 2. ___ personal property
tax receipts | 17. ___ insurance policies |
| 3. ___ income tax reports | 18. ___ warranties or guarantees |
| 4. ___ receipts | 19. ___ deposit for utilities |
| 5. ___ birth certificate | 20. ___ installment coupon books |
| 6. ___ adoption papers | 21. ___ list of credit card numbers |
| 7. ___ divorce papers | 22. ___ dates when payments are due |
| 8. ___ car titles | 23. ___ savings account passbook |
| 9. ___ car license number | 24. ___ checkbook and record |
| 10. ___ deeds | 25. ___ cancelled checks (3 years) |
| 11. ___ will | 26. ___ records for tax purposes:
medical, dental, drug expenses;
car expenses for business;
gifts and contributions;
dividends and interest |
| 12. ___ hunting license | |
| 13. ___ fishing license | |
| 14. ___ military papers | |
| 15. ___ family medical records | |

Complete:

Cancelled _____ offer a recognized record that a bill was paid.

The bank will send a statement at regular intervals to show _____ and _____.

When you write a check keep a _____ of how much and to whom you gave it.

A fee for writing over a certain number of checks is called a _____.

Banks pay _____ on savings accounts.

Banks are insured for \$20,000 for each account by an agency called _____.

EVALUATION, Cont.

You may keep valuables in a bank _____.

KEY: xx 5, 6, 7, 10, 11, 14, 16, 17, 19

checks, deposits, withdrawals, record, service charge, interest,

F.D.I.C., safety deposit box

Case Studies #1

#1. SAVE SOME OF WHAT YOU EARN

Tom Alday has a paper route and uses his profits to buy some of his clothes, some school supplies and uses the rest on snacks, movies, and records. On his vacation he wanted to go to Memphis to visit a friend but had to ask his father for the money.

1. How could Tom pay for his own trip next year?
2. Why is it wise to plan for unexpected opportunities?

#2. LEARNING HOW TO PLAN WITH MONEY IS AN IMPORTANT PART OF YOUTH TRAINING

Sue Bell babysits for several young mothers. She averages \$2 a week in fees. She found a coat for \$30. She has \$5 saved.

1. Should she put the coat in lay-a-way?
2. Would she be able to pay for the coat in time to wear it this season?

#3. GIVE RESPONSIBILITY FOR MANAGING MONEY CONSIDERING MATURITY, EXPERIENCE, AND NEEDS

Nell Carnes gets an allowance of \$1 a week. She is supposed to pay for her school supplies but is always "broke" when she needs something. Her mother sighs and gives her more money.

1. Do you think Nell is ready for a larger allowance?
2. Do you think her mother should make her pay back the extra money?

#4. DETERMINE HOW MUCH LIVING COSTS

Bob Day gets his money by asking his father for what he needs. Bob is mad because his father won't buy him an expensive amplifier for his guitar.

1. Is Bob being fair about his share of spending?
2. Should Bob's father explain more about their income and their expenses?

#5. FIND OUT EXACTLY HOW MUCH CREDIT IS GOING TO COST

Dan Everett wants to buy a motorcycle and plans to pay for it in installments. He has \$50 saved from birthday and Christmas money for the down payment. If he makes payments of \$10 a month for 12 months, what will be the total cost?

#6. TAKE THE SHORTEST TIME POSSIBLE TO PAY BACK WHAT YOU BORROW

Beth Ford borrows money from anyone who will "lend" it to her but "forgets" to pay it back.

1. What might be the outcome if she continued this?
2. What could Beth do to increase her income?

Case Studies #2

#7. DETERMINE WAYS TO FINANCE YOUR CAREER PLANS

Jean Gore helps her widowed mother after school in the shop her mother owns. Jean knows that her mother just manages to pay their bills. Jean likes to sew and makes things to sell in the shop.

1. What courses in high school would help Jean improve her skills?
2. What further training could she obtain?

#8. CHEERFUL FAMILY COOPERATION CAN HELP MAKE A SPENDING PLAN WORK

Sam Helms is the oldest of three children. Sam's father has an average income and the family lives comfortably but not extravagantly. Sam is given the responsibility of paying his school fees, buying his supplies, and planning his clothes purchases. Sam knows what his fair share of the family income is and tries to cooperate cheerfully.

1. Do you think Sam has too much responsibility?
2. What responsibility would you expect Sam's younger sister age 12 to be given?

UNIT 26: UNDERSTANDING CIVIC RESPONSIBILITIES
(Suggested Time: Three Days)

Behavioral Objectives

1. Increase student's awareness of individual civic responsibilities by exploring various civic organizations in the community and how they contribute to making a better community.
2. Instill a desire to participate in community improvement projects by helping students realize the service rendered by individuals in organizations as measured by correctly matching four out of five community projects with their sponsors.
3. Help students evaluate youth organizations to which they belong as measured by a rating scale for self-development and service opportunities as contrasted to factors such as prestige.
4. The student will indicate by making a checklist with 100 percent accuracy his recognition of community characteristics that are favorable to attracting industry which will increase job opportunities.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<u>Behavioral Objective #1 and #2</u> <ul style="list-style-type: none">. Choose students who can contact members of local civic organizations to report aims, projects, dues, other expenses, meeting times of several groups.. View film and follow with class discussion.	Active members of civic organizations "Community Responsibilities," Film #1421 Arkansas Department of Education
<u>Behavioral Objective #3</u> <ul style="list-style-type: none">. List organizations to which students belong and rate them as to service and personal development as contrasted to prestige.. Checklist	Handout #1 Handout #2
<u>Behavioral Objective #4</u> <ul style="list-style-type: none">. Secure a speaker or panel of speakers for thirty minutes on a talk on "Community Development Creates More Jobs."	Speakers: AIDC

INSTRUCTIONAL

RESOURCES

ENRICHMENT

- Make a study of youth organizations in your school community listing primary functions, requirements for membership, dues, and other expenses.

VOCABULARY

by-law
charter
club
leadership
citizenship

members
officers
responsibility
service
ordinance

EVALUATION

Circle the answer that best completes each statement:

1. The organization with an Indian name meaning service:
a. Sertoma b. Kiwanis c. Optimist
2. An organization limited in membership to persons under 40 years of age:
a. Jaycee b. Rotary c. Lions
3. Established for the purpose of securing industry for our state:
a. AIDC b. Dept. of Labor c. Employment Security
4. Concerned with transportation, goods, and industry, loading, storage facilities:
a. Kiwanis b. Rotary c. Arkansas River Development Com.
5. Their motto "Builders of good citizenship."
a. Sertoma b. Jaycee c. Civitan

In the space before each sponsor, place the number of the statement that best describes their community projects.

- | | |
|---------------|---------------------------------------------|
| _____ Civitan | 6. International student scholarships |
| _____ Rotary | 7. Sight conservation, sell light bulbs |
| _____ Kiwanis | 8. Miss Arkansas Pageant |
| _____ Lions | 9. Kiddie zoo and high school essay contest |
| _____ Jaycee | 10. Playground equipment, camp, Key Club |

KEY

- | | |
|------|-------|
| 1. b | 6. 9 |
| 2. a | 7. 6 |
| 3. a | 8. 10 |
| 4. c | 9. 7 |
| 5. c | 10. 8 |

WOULD INDUSTRY CHOOSE YOUR COMMUNITY?

Check (x) characteristics of a community which would be expected to increase employment by attracting industry to the community:

- abundant supply of pure water
- reliable public transportation
- absence of zoning regulations
- anti-noise ordinance
- dog-leash ordinance
- accredited public school system
- dependable police and fire protection
- public library, art center, museums
- recreation facilities such as parks, swimming pools, theater, athletic fields
- convenience to outdoor recreation such as fishing, hunting
- good relations within and between racial, religious, and political groups
- hospital and public health services
- low record of crime and vandalism
- opportunities for specialized training and higher education
- community acceptance of newcomers
- equitable tax structure
- modest utility cost rate
- available labor force that can be trained
- housing facilities which can be expanded to meet needs
- absence of severe climatic conditions

UNIT 27: EVALUATING THE CAREERS THAT HAVE BEEN EXPLORED
(Suggested Time: Three Days)

Behavioral Objectives

1. The student will evaluate the trimester with a personal evaluation sheet about the occupations selected for further study.
2. The student will be able to match occupations he has explored with the most appropriate curriculum available to him.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<u>Behavioral Objective #1</u> <ul style="list-style-type: none">• Students will mark student evaluation sheets• Students will complete summary statement about the occupations selected. Ask them to total the "plus" marks for each occupation.	Student Evaluation Handout #1 Form E
<u>Behavioral Objective #2</u> <ul style="list-style-type: none">• Students will compare curriculum offerings with occupations tentatively selected.	
<u>ENRICHMENT</u> <ul style="list-style-type: none">• "Find Out For Yourself"• "What Do Others Think About Me?"	Handout #2 Handout #3

EVALUATION

It should be apparent that more emphasis may need to be placed on some occupational groups and less on others. Look for evidences that teacher interests may be reflected in choices made by student and seek to be more objective. Add to file unusual or special jobs for exceptional students.

STUDENT'S EVALUATION

1. I have been made aware of continued change in the world of work.
Very much _____ Somewhat _____ Not at all _____
2. I feel that I can accept change and will not object to making personal changes in my work and in my personal life.
Yes _____ No _____ I don't know _____
3. I have become acquainted with the major fields of work and have developed a serious interest in one or more career areas.
Yes _____ No _____
4. I have had an opportunity to explore career possibilities in which I am interested, to make some comparisons, and to reach some decisions regarding my own career.
Yes _____ No _____
5. I feel that I will need further training or education.
Yes _____ No _____
6. If the answer to number 5 is "yes," I know where I can find the training.
Yes _____ No _____
7. I feel that I will be ready to enter my chosen career when I have finished high school.
Yes _____ No _____
8. Three methods of achieving further education would be:
A. _____
B. _____
C. _____
9. I believe I have improved my own ability to get along with others.
Yes _____ No _____
10. I have considered my abilities so that I can present myself favorably when applying for a job.
Yes _____ No _____
11. Those courses which have been most important to me are:

12. The course(s) in which I can see no relation to my future career is (are):

13. Is having a job more important than any other personal goal?
Yes _____ No _____

UNIT 27
Handout #1, cont.

14. I have had work experience while in junior high school.
Yes _____ No _____ If "yes" indicate kind _____
15. I have had the opportunity to visit with people who are actively engaged
in the career field in which I am interested.
Yes _____ No _____
16. In my opinion my school provides adequate assistance concerning possible
career choices.
Yes _____ No _____

Source: A Guide for Developmental Vocational Guidance, Oklahoma State
Department of Education

FIND OUT FOR YOURSELF

Check the following. Discuss it with your teacher or parents.

Which one of the following hobbies do you like best?

- a. collecting stamps or coins
- b. reading adventure stories
- c. building model airplanes or model boats

Which one of the following jobs would you rather do after school hours if you had the opportunity?

- a. sell newspapers or magazines
- b. help out in a gas station or garage
- c. work in a supermarket

Use the numbers 1, 2, 3, 4, to show the order of the following which you find most interesting in school.

- a. your English courses
- b. your science courses
- c. your history courses
- d. your math courses

Which one of the following would you rather read in your spare time?

- a. popular books and magazines on science and inventions
- b. fiction stories and novels
- c. comic books

Which one of the following places would you like to visit most if you had the chance?

- a. radio or television studio
- b. famous museum or library
- c. a factory where automobiles or tractors are made

WHAT DO OTHERS THINK ABOUT ME?

Have your teacher or parents check you on the following to find out what they think your chances are of becoming a skilled craftsman:

Appraisal made by: Teacher _____ Parent _____

	Yes	No
1. Do I have the "knack" of understanding mechanical things?	_____	_____
2. Do you think I have the patience necessary for precision work?	_____	_____
3. Do I have the "knack" of working with my hands?	_____	_____
4. Is my math work satisfactory?	_____	_____
5. Is my science work satisfactory?	_____	_____
6. Do you feel that I would be happy working in one of the skilled trades?	_____	_____
7. Do I stay with a job until I finish it?	_____	_____
8. Do you think I have enough initiative and interest to train for a skilled trade?	_____	_____
9. Do you think I will be a success if I decide to be a craftsman?	_____	_____

UNIT 28: INTRODUCTION TO THE INDUSTRIAL EDUCATION LABORATORY
(Suggested Time: Two Days)

Behavioral Objectives

1. To develop within the student an attitude in keeping with what is expected in industry as practiced in scheduled laboratory experiences contained in this unit.
2. To develop within the student the importance of safety practices, for his own personal safety as related to tools and machines, and the expectation of industries through laboratory experiences as observed by the instructor.
3. To develop within the student the importance of desirable personal characteristics by his class participation, involving role playing, investigative research of occupations, and action laboratory experiences as scheduled in the various units.
4. The student will keep a written record of occupations investigated within a category that will provide important factors to consider in making a tentative choice later in the year for the purpose of planning next year's curriculum.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none"> . Discuss objectives: Posted rules and regulations to be discussed by teachers with students. Copy to be given to students. 	Handout #1
<ul style="list-style-type: none"> . Show film and have students fill out outline. Summary to be discussed after the film 	"First Day on the Job" Outline from Standard Form "D"
<ul style="list-style-type: none"> . Show film and have students fill out outline. Summary to be discussed after the film. 	"Raindrops Keep Falling" Outline from Standard Form "D"
<ul style="list-style-type: none"> . Laboratory Organization and Procedures: <ol style="list-style-type: none"> 1. Go over areas of laboratory as to activity, study, and planning. 2. Explain and organize the group into real life situation as related to industry. 3. Review general course objectives as related to the occupational clusters as identified on Handout #3. 	Handout #2 Handout #3, Refer to General Course Objectives (To be identified)
<ul style="list-style-type: none"> . Introduce Student Guide for studying and exploring an occupation 	Form A
<ul style="list-style-type: none"> . Evaluation 	Unit Test

INTRODUCTION TO INDUSTRY LABORATORIES

1. General rules that apply to the school
2. Rules and regulations that apply.

A. Wearing Apparel

1. Clothing such as coats, sweaters, and jackets should be removed.
2. Long shirt sleeves should be rolled up.
3. Close fitting shop apron should be worn to protect your clothing.
4. If your hair is long enough to interfere with your seeing or to become entangled in a machine, make sure you have adequate protection.
5. Goggles and face shields are to be used when using machines. If they are not available, ask your safety engineer for them.

B. Tool Safety

You will be instructed in the safe use of tools and machines with which you will be working. When you have been taught the proper procedure, don't try short cuts, just for once, this causes accidents. All accidents can be prevented.

1. Carefully watch each demonstration on how to use each tool and machine.
2. Use tools only for what they were designed for.
3. Get permission before using power machines.
4. Sharp tools should be carried with the cutting edge or points turned down.
5. Never use tools with loose handles.
6. Never come up behind another student that is working on a machine. You may cause him to have an accident.
7. Sharp tools should not be allowed to extend over the edges of benches.
8. Screwdriver points must be kept properly pointed to prevent possible injury to hands and wood fiber.
9. Test the sharpness of tools on wood, not on your hand.
10. The teeth of the saw should not be allowed to come into contact with other tools.
11. Never use a file without a handle.

C. Horseplay

Horseplay and practical jokes can result in very serious injuries. It is each student's responsibility to see that these are avoided during the entire laboratory period.

1. Running in the shop is dangerous; hurry results in carelessness and often causes accidents.

UNIT 28 - Handout #1, cont.

2. Warn others to get out of your way when you handle long pieces of material.
3. Be courteous at all times.
4. Students are to be at their assigned stations at the beginning and end of period.
5. You will be given instructions concerning your work for the day.
6. Plan your work so that you will be busy the entire period.
7. Be considerate. Treat your fellow students as you wish to be treated.

D. Housekeeping

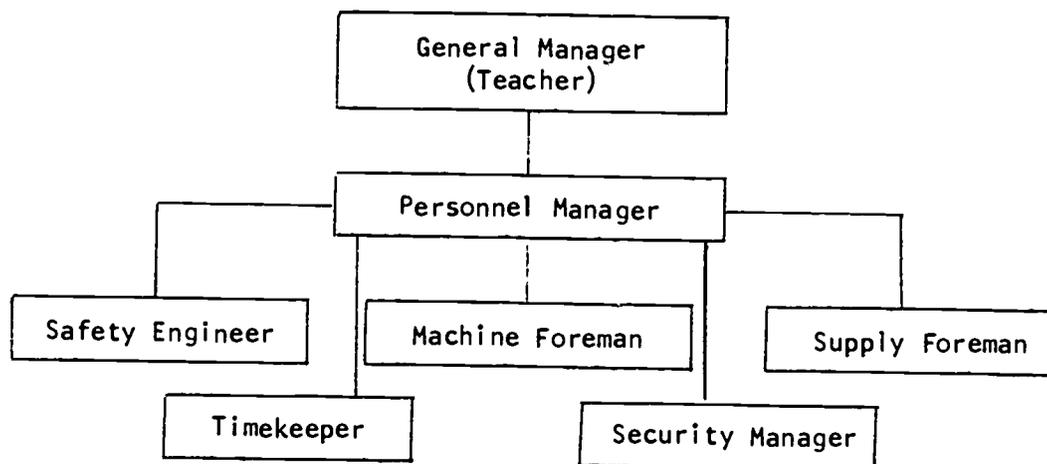
1. Place scrap pieces in scrap box. Pick up any scraps which may have dropped on the floor.
2. Liquids, such as paints, oil, or water, should be wiped from the floor if spilled.
3. Oily rags or paint rags should be placed in the proper type of metal container to prevent spontaneous combustion.
4. Always see that tools and materials are kept out of the aisles and off the floor.

INTRODUCTION TO THE INDUSTRIAL LABORATORY

The laboratory will be organized in general as would be found in industry.

1. General Manager (Teacher): Responsible for all activities within the classroom and lab.
2. Personnel Manager: To assist the instructor in helping students who do not understand their assignment or duties, and report to the instructor any duties that are not being done.
3. Timekeeper: Checks roll, fills out absentee forms, makes notations of students checking out of class and other duties pertaining to attendance.
4. Safety Engineer: Must be familiar with all safety rules of the lab and know the safety features of each tool and machine in the lab. His responsibility is to report any safety violations to the instructor. He will also be in charge of the housekeeping committee.
5. Machine Foreman: Assists the instructor in checking the conditions of the machines and reports his findings to the instructor. Makes minor repairs and adjustments as the instructor directs.
6. Tool Foreman: Responsible for the tool room and/or tool panels to see that they are clean and kept in an orderly manner. He is to report missing and broken tools to the instructor.
7. Supply Foreman: Keeps materials in order and distributes to class as needed. He is to report shortages to the instructor so that materials will be available when needed.
8. Security Foreman: Responsible for unlocking lockers, tool room, tool panels and supply room at the beginning of the period and locking them at the end of the period. He may have other duties as the instructor directs.

CLASS ORGANIZATION CHART



UNIT 28 - Handout #3

The Career Clusters that will be explored in this laboratory are:

1. Introduction to the Industrial Education Laboratory
2. Labor Unions and Related Organizations
3. Legal Requirements of Working
4. Drafting Careers
5. Building Trades
6. Forest Industry Careers
7. Career Opportunities in the Metal Industries
8. Electrical and Electronic Careers
9. Graphic Arts
10. Exploring Agricultural Careers
11. Maintenance and Repair Careers
12. Transportation Careers
13. Planning the High School Program

In approaching each cluster and the study of an occupation within the cluster, the student will be made career conscious and alert to some of the ways in which his personal life will be affected, such as friendships, life style, community service, voting habits, citizenship, and leisure time.

Other factors to be considered in examining an occupation are:

1. Occupational factors
2. Location of occupation
3. Occupational requirements
4. Physical requirements
5. Labor unions and organizations
6. Environmental and working conditions

POST TEST

1. List a minimum of three (3) safety rules of wearing apparel.

2. List a minimum of four (4) general safety rules pertaining to tool safety.

3. List a minimum of five (5) general safety rules pertaining to "horseplay."

4. List three (3) safety rules pertaining to housekeeping.

UNIT 29: LABOR UNIONS AND RELATED ORGANIZATIONS
(Suggested Time: Four Days)

Behavioral Objectives

1. The student will develop basic understandings of labor unions and related organizations by participating in the organization of a club.
2. The student will be able to conduct a meeting using accepted parliamentary procedures.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">• Review student objectives with class.• Ask students studying this unit to take the pretest and score themselves.• Instruct the students to read and study at their own pace the resource materials contained in this unit.• Organize a vocational orientation club in each class.• Elect officers for the club.• Adopt a constitution and by-laws. Request that each student submit at least one constitution and one by-law entry.• Conduct meeting for the purpose of transacting club business.• Use the club organization and role play to hold a labor union meeting. The instructor should represent management and allow the class to represent the organized group in presenting items to be negotiated through the process of collective bargaining. Also have the group present a class or school problem as a grievance issue for an attempted settlement.• Scheduled and called meetings of the class club should become a part of this course throughout the year.	<p>Handout #1</p> <p>Resource Sheets #1a, #1b, #1c, #1d, #1e, and #2</p> <p>Handout #2</p> <p>Handout #2</p> <p>Review Resources Sheets #1a, #1b, #1c, #1d, and #1e</p>

INSTRUCTIONAL

- . Capsule the "sought after" behavioral concepts to the class along with a factual review of the unit.
- . Administer post-test. Schedule time for individual student counseling session and inform student of his post-test score.

ENRICHMENT

- . Invite a local union member to discuss unions
- . Invite a management representative of a local industry to discuss management's role in working with labor.
- . Discuss the Arkansas Right-To-Work Law

RESOURCES

Handout #1

Local labor organization

Local industry

Amendment #34

KEY TO HANDOUT #1

1. T
2. T
3. F
4. T
5. T
6. T
7. F
8. F
9. T
10. T
11. T
12. T

PRETEST AND POST-TEST

Directions: Read each of the twelve statements and circle T or F to indicate whether you believe each statement to be True or False.

- T F 1. An individual worker can do very little to help improve his wages or working conditions.
- T F 2. Unions are one way employees can present their problems and have them considered.
- T F 3. Labor is defined as working with one's hands.
- T F 4. Uriah Stephens and the Knights of Labor were successful in gaining the first eight-hour labor contract in the United States.
- T F 5. Samuel Gompers played an active part in forming the AFL.
- T F 6. The CIO represented mass production industries.
- T F 7. The AFL and CIO are still separate unions.
- T F 8. Members of labor unions are not required to pay union dues.
- T F 9. Labor contracts between unions and management are sometimes negotiated through collective bargaining.
- T F 10. The AFL-CIO is a federation of national and international unions.
- T F 11. Parliamentary procedure is the code of rules for working together in groups.
- T F 12. An organization's constitution and by-laws are a set of approved rules that aid in governing the organization.

UNIT 29 - Handout #2, cont.

ARTICLE III - MEMBERSHIP

Career's Clubs shall be open for membership to all students enrolled in "Investigating Career Opportunities."

ARTICLE IV - DUES

Membership dues will not be allowed.

NOTE: Each instructor should obtain a copy of Arkansas Association of V.I.C.A. "Official Handbook" from the Director of Trade and Industrial Education, Arkansas State Department of Education.

LABOR UNIONS AND ORGANIZATIONS

An individual worker can do very little to help improve his wages or working conditions. By joining with his fellow employees, however, he can effectively bargain with his employer. Some people say you can't fight city hall or buck the boss, but in a democracy this isn't true. Unions are one way employees can present their problems and have them considered. Approximately 17,900,000 workers, or 28 per cent of the non-agricultural workers in the United States belong to labor unions. The strongest unions are in the fields of construction, entertainment, manufacturing, mining, printing and publishing, and transportation.

General Ideas About Labor

There are many ideas about what labor means. Usually one assumes labor is working with one's hands. In economics, the term labor has a very broad meaning. Labor includes many forms of human effort, physical and mental, that provide a service or add value to goods. Labor in these terms includes managers, mechanics, factory workers, bookkeepers, truckers, salesmen, and many others. There is another definition of labor, however, that has a more restricted meaning. This kind of labor is commonly found in organized labor unions. This labor is paid wages or other compensation for the creation or distribution of goods and services. These workers are usually not the owners of the goods they produce or owners of the business in which they work.

Knights of Labor

In 1869, Uriah Stephens, a tailor, and eight fellow workers organized the Noble Order of the Knights of Labor in Philadelphia. It maintained extreme secrecy until 1878, then began organizing skilled and unskilled workers openly. By winning railroad strikes against the Gould Lines and advancing the program for the eight-hour day, the Knights of Labor gained many followers, claiming over 700,000 members in 1836. It declined rapidly after the emergence of the American Federation of Labor.

American Federation of Labor

The Knights of Labor did not seem to represent craft unions interests, so several craft union leaders left, including Samuel Gompers and Adolph Strasser. They formed the Federation of Organized Trades and Labor Unions (FOTLU) in November of 1881. At a convention in Columbus, Ohio, in December 1886 it was reorganized as the American Federation of Labor. The AFL was the first national union to represent the practical economic interests of its members. The Federation did not concern itself much with the social and political welfare of workers, nor was it concerned about the welfare of all workers in general. They sought to further the interests of skilled workers in certain occupations. William Green succeeded Gompers as president of the AFL in 1924 and generally followed Gompers' policies.

The Congress of Industrial Organizations

Mass production industries, such as the automobile industry, developed

on a wide scale in the 1930's. These industries needed union organization. Many leaders in the AFL felt that mass production industries should be organized on a craft basis. Others thought these industries should have mass industrial unions. John L. Lewis of the United Mine Workers gave leadership to this idea and organized a group called the Committee for Industrial Organizations. This group was forced out of the AFL in 1938 and became the Congress of Industrial Organizations (CIO). The CIO followed many AFL policies, but unlike the AFL they believed in taking direct political action.

The AFL-CIO

The formation of CIO caused rivalry between the AFL and CIO causing them to compete in attempting to win benefits from employers. Leaders of both sides recognized that this division weakened the strength and progress of the organized labor movement. A merger seemed to be the solution to give them strength and end the disputes. For several years a number of AFL and CIO leaders had dreamed of combining the two federations. In December 1955, after many months of discussion the two groups became a single organization (AFL-CIO). George Meany became its first president.

A declared purpose of the AFL-CIO is "to protect the labor movement" from corrupt influence and practices of all kinds. Some people were afraid that the merger would give labor too much power. They did not realize that labor and management today are equally concerned with the nation's economic well being.

Union Membership and Dues

When one joins a union he pays an initiation fee to the local union, which in turn pays an initiation fee for each new member to the national union. Local unions usually fix the dues for the members, which run approximately \$6 per month. The local union collects the dues, keeps part of the money, and sends the rest to the national union. The national union, in turn, keeps part of the money and pays the AFL-CIO a small amount for each member. Some unions have checkoff agreements with employers. This means that the employer deducts union dues from the worker's pay and remits the money directly to the union. The Labor-Management Relations Act of 1947 states that the checkoff can be made only with the written consent of the employee.

Union Aims

Collective Bargaining

This means bargaining as to wages and matters relating to working conditions with employers by representatives of organized groups of workers. Such agreements, if lawful, become binding to a certain extent on all individuals concerned. Collective bargaining is the central objective of labor unions.

Representatives of a union and a company meet to talk over problems. The union makes certain demands and the management makes counteroffers and

Resource Sheet #1c

from this they reach a mutual agreement. The representatives put their agreements in the form of a written contract, which contains specific statements of agreement relative to a number of points.

In order to deal effectively with employers in collective bargaining, unions insist that they must organize and maintain union security, which means acceptance and recognition of the union by the employer.

Arguments for Collective Bargaining:

1. Only by collective agreements can workers have equality of bargaining power with employers.
2. When individuals bargain, wages for the entire group tend to be set by workers who will accept wages that may have no relation to productivity.
3. Since the supply of labor usually is greater than the demand, collective bargaining is necessary to obtain fair wages.
4. Strikes are prevented if both parties do not violate the contract.
5. A long term contract makes it possible for an employer to know what his labor costs will be and gives employees job or wage security.

Arguments Against Collective Bargaining:

1. Employers contend that unions demand too much and threaten to destroy profits.
2. Unions interfere with the decision-making authority of management.
3. Unions tend to destroy loyalty of employees to the employer.
4. The employer considers himself generous and kind to his employees and considers it an insult for a union to want to speak for and negotiate for his employees.
5. The human aspects of management are being destroyed, and labor is being separated and divided from management because there are collective spokesmen.

Union Aims through Collective Bargaining:

1. Improve the wage rate--the amount of money a worker receives for a certain period of time or a certain amount of work.
2. Guaranteed wage--an agreement in which the company agrees to pay its workers all or part of their regular wages even if the plant is closed.
3. Shorter work week.
4. More paid holidays, longer vacations.
5. Improved working conditions.
6. Safety programs and insurance programs.
7. Give the worker a voice in his craft or industry.

Other Union Aims are:

1. Sponsor social activities.
2. Educate their own members in their duties as citizens.
3. Promote legislation that will help labor.
4. Give scholarships to needy boys and girls.
5. Look after the welfare of union members.
6. Sponsor credit unions for members.

7. Establish a working relationship between labor and management for settling grievances or complaints.

Labor Union Structure

There are three levels of union organization: (1) the local union, (2) the national or international union, and (3) the federation.

Local Unions

Local unions, or "locals" represent workers in the same area, such as a city or county. Some unions have many locals and others have only a few. They hold meetings at a headquarters or hall, usually every month. The members elect officers every one or two years. Officers carry out their union duties in addition to their regular jobs. If they can afford to, locals hire a full time, paid representative, or "business agent." The union members of a division in a company elect a shop steward to handle grievances of members with the employer. He is not an officer of the union.

National or International Unions

Local unions may join together in a national union or an international union (they have locals in Canada, Puerto Rico, etc.). These unions supervise the important union job of collective bargaining. A convention held every one, two, or four years govern most national unions. Local unions send delegates to these conventions.

Federation

The AFL-CIO is a federation of national and international unions. There are almost 18 million union members in the United States and over 13 1/2 million belong to unions affiliated with the AFL-CIO. Not all national unions belong. For example, the United Mine Workers and several railroad unions are not members of the federation.

REVIEW QUESTIONS FOR UNIT

1. What is the primary aim of unions?
In general, unions seek improved working conditions and higher wages for their members.
2. What is labor's most important method of getting benefits for workers?
Through collective bargaining, which is a meeting of representatives from union and management, agreements over disputes are worked out to the satisfaction of both parties.
3. What do unions work for, other than higher wages?
Guaranteed wage, shorter working week, more paid holidays, and longer vacations, improvement of working conditions, and safety programs. Unions sponsor dances, picnics, and other social activities. They educate members on duties as a citizen, give scholarships to needy boys and girls, etc.

Resource Sheet #1e

4. What are union dues used for?
To finance bargaining and procedures for obtaining goals of unions.
To pay workers a small salary while workers are on strike.
5. What effect do labor unions have on the price of the finished product?
Labor union demands for management to spend more on workers' salaries and other benefits means the finished product will cost more to cover these added expenses.
6. How does the consumer benefit from labor union regulations regarding the quality of the finished product?
The product is required to meet certain standards and if it does, this improves quality.
7. What are the disadvantages of unions?
Prices may be increased when management must meet demands of unions. Unions often keep industry from working for long periods of time, thus adversely affecting the economy. Unions interfere with the decision-making authority of management. Unions may destroy the loyalty of the employee to his employer.
8. Who eventually pays for the cost of higher wages obtained through strikes?
The consumer pays for the higher wages through the higher cost of the product.
9. What is a business agent?
A business agent is a full time, paid representative to handle union business.
10. What is a shop steward?
The union members of a division elect one of their own rank to handle grievances of members with the employer. He is not an officer of the union.

PARLIAMENTARY PROCEDURE

Parliament comes from the French word parler, which means "to speak." Conducting meetings according to parliamentary law comes to us from England and can be traced back to Roman law. Parliamentary procedure is the code of rules for working together in groups.

Parliamentary rules have grown naturally out of certain basic ideas or principles, which are in harmony with our democratic ideals. Because we believe that power resides in the people of a nation, or of a club, or of a class, we determine majority opinion by vote and then abide by the rule of the majority. We try to make sure that everyone who wishes to do so has a chance to express his views in our meetings because we believe that our citizens are equal in rights, privileges, and duties. To carry out this principle, order must be preserved and members must be courteous. Although we abide by the rule of the majority, we still feel that the minority should express their views freely if they speak in order and one at a time. Decisions are made by allowing all participants to vote. The responsibility then rests on individual members who make up an organization. Therefore, one of the most important skills that we develop during our high school days is a knowledge of the importance of using parliamentary procedure.

Parliamentary procedure is properly used wherever people are gathered together to formulate decisions. Parliamentary procedure is necessary if group action is to be accomplished so that the rights of the minority may be respected. When an individual in a group realizes that business is carried on by the will of the majority, he should use his voice to express his ideas.

To be able to express himself in a meeting, a person recognizes and practices some ground rules. Business is introduced and carried out by the proper use of the main motion. Following are three easy steps to follow:

- A. Member secures the floor
 1. Member rises
 2. Member addresses the Chair
 3. Chair recognizes the member
- B. Introducing business
 1. Member makes a motion by saying, "I move that . . ."
 2. Motion is seconded
 3. Chair says, "The motion has been made and seconded that . . . Is there any discussion?" (Discussion follows with one person speaking at a time.)
- C. Putting the question
 1. Chair states the question and asks for the affirmative vote.
 2. Then the negative vote
 3. Chair states the result. Only until then is the motion completed.

Each instructor needs a copy of "The How in Parliamentary Procedure" by Kenneth Lee Russell, published by the Interstate Printers and Publishers, Inc., Danville, Illinois.

UNIT 30: LEGAL REQUIREMENTS OF WORKING
(Suggested Time: Two Days)

Behavioral Objectives

1. The student will apply for a social security card within four weeks.
(Exceptions: Has card or parents object)

On a written test:

2. The student will be able to list four benefits from Social Security for workers, survivors, and dependents.
3. The student can explain how the social security tax is paid by work and employer.
4. The student will recognize the legal requirements for employment by matching four of five requirements to the persons affected by laws.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<u>Behavioral Objectives #1, #2, and #3</u>	
Both state and federal governments have laws regulating the employment of people.	
<ul style="list-style-type: none">. Pretest. Invite speaker from the Social Security Office.	Social Security Application Forms and Pamphlets
<u>Behavioral Objective #2</u>	
<ul style="list-style-type: none">. Invite speaker from State Department of Labor - Child Labor Laws.. List occupations considered hazardous for persons over sixteen and under eighteen years of age.. Discuss laws concerning the employment of women.. List employers with five or more workers who are exempt from Workmen's Compensation.	Form B Transparencies #1 and #2 <u>Facts, Figures, and Functions of Arkansas State and Local Government,</u> Barnes

INSTRUCTIONAL

ENRICHMENT

Student may prepare written report on one or more of the laws or regulations concerning employment.

VOCABULARY

Compensation
Disability
Minimum
Quarter of coverage
Survivor

RESOURCES

PRETEST FOR UNIT

Below are questions related to the laws governing one's employment. Your score on this test will not be considered in computing your grade for the unit. This is merely to measure your present level of understanding pertaining to employment laws. Circle the correct answer or complete the blanks where necessary.

1. The minimum age a minor may work is _____.
2. The Federal minimum wage rate is _____. (per hour)
3. The minimum wage rate in Arkansas is _____. (per hour)
4. A child must be _____ years old in Arkansas before he/she can be employed.
5. A child in Arkansas under 16 may not work more than _____ hours a week.
6. A child in Arkansas under 18 may not work more than _____ hours a week.
7. The minimum age a minor may work is fifteen. (True or False)
8. An application must be filed with the Employment Security Division for minors to work. (True or False)
9. If both women and men are doing the same work, there can be no discrimination because of sex in the payment of wages or salaries. (True or False)
10. A child under 16 years of age cannot work in any occupation dangerous to life or limb or injurious to health or morals. (True or False)

KEY

- | | |
|-----------|----------|
| 1. 14 | 6. 54 |
| 2. \$1.60 | 7. False |
| 3. \$1.20 | 8. True |
| 4. 14 | 9. True |
| 5. 48 | 10. True |

WHAT HOURS MAY A MINOR WORK?

CHILDREN UNDER 16...

NOT MORE THAN 8 HOURS A DAY

NOT MORE THAN 6 DAYS A WEEK

NOT MORE THAN 48 HOURS A WEEK

NOT BEFORE 6:00 A.M. & NOT

AFTER 7:00 P.M.

CHILDREN UNDER 18...

NOT MORE THAN 10 HOURS A DAY

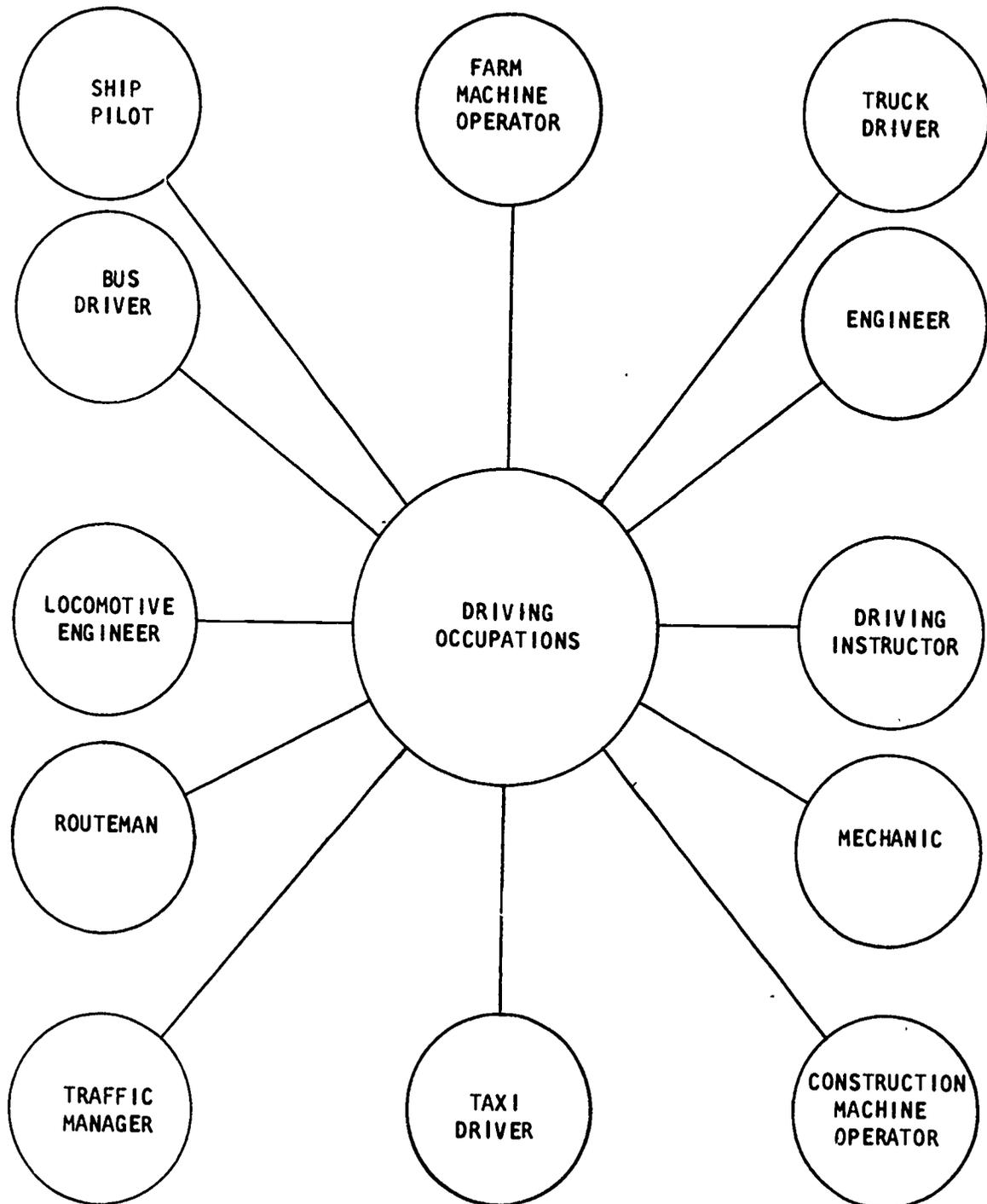
NOT MORE THAN 6 DAYS A WEEK

NOT MORE THAN 54 HOURS A WEEK

NOT BEFORE 6:00 A.M. & NOT

AFTER 10:00 P.M.

DRIVING OCCUPATIONS



POST TEST FOR UNIT

1. Match the following by placing the correct letter in the blank space:

- | | |
|-------------------------|---------------------------------------------------------------------------------------|
| _____ 14 year old youth | a. may be employed in occupation not listed as hazardous |
| _____ 16 year old youth | b. receives compensation for injuries incurred while at work |
| _____ over 18 years old | c. minimum age at which a minor may work |
| _____ women | d. may be employed under adult regulation |
| _____ disabled person | e. limited to eight consecutive hours in one day, or six consecutive days in one week |

2. Social Security benefits are paid when a worker:

(2) becomes _____, (b) _____, (c) _____.

3. Who, in addition to the worker may receive Social Security benefits?

- (a) widow, age _____ or over
(b) wife, under this age, with _____
(c) unmarried children under _____, or to age _____ when students.
(d) dependent _____.

4. Who, in addition to the worker, pays the Social Security tax? _____

5. Social Security tax is paid on "quarters of coverage" which means that the tax must be paid when a worker earns \$ _____ or more in a _____ month period.

6. List three occupations considered hazardous for persons between sixteen and eighteen years of age.

(a) _____, (b) _____, (c) _____.

ANSWERS

1. c, a, d, e, b
2. (a) disabled (b) retires (c) dies
3. (a) 60 (b) minor children (c) 18, 22 (d) parents
4. Employer
5. \$50 three
6. (a) motor vehicle drivers and helper
(b) operator of power driven machines
(c) operator of power driven hoisting machines

UNIT 31: DRAFTING CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

1. The student will analyze the career outlook for drafting in the local labor market and evaluate the information for personal use by presenting an oral report to the class.
2. The student will be able to make a full hand sketch of straight lines, circular and irregular objects.
3. The student will know and be able to apply the alphabet of lines as measured by his ability to sketch a three dimensional object.
4. The student will be able to visualize an object and make orthographic drawings to standard specifications.
5. The student will be able to make pictorial drawings applying standard procedures.
6. The student will be able to define terms which are related to drafting careers with at least 80 percent accuracy.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<p><u>Behavioral Objective #1</u></p> <ul style="list-style-type: none"> . Investigate the job opportunities within drafting careers <ol style="list-style-type: none"> (1) Senior draftsman (2) Junior draftsman (3) Detailer (4) Checker (5) Tracer 	<p><u>Occupational Outlook Handbook</u> Utilize student outline for exploring an occupation, Form A</p>
<p><u>Behavioral Objective #2</u></p> <ul style="list-style-type: none"> . Refer to basic drafting text 	<p><u>Everyday Sketching and Drafting</u> by J. W. Giachino, Henry J. Beukema, American Technical Society, Chicago, Illinois</p>
<p><u>Behavioral Objective #3</u></p> <ul style="list-style-type: none"> . Distribute worksheet and demonstrate on chalkboard: straight lines, angles, circles and transferring irregular curve designs by use of squares. 	<p>Handout #1</p>

INSTRUCTIONAL

Behavioral Objective #4

- . Distribute information and work sheets. Discuss lines and development of standard drawings.

Behavioral Objective #5

- . Instruct students in orthographic projections and standard specifications

Behavioral Objective #6

- . Distribute vocabulary list and ask students to obtain definitions

ENRICHMENT

- . Students may make an indepth study and write a paper on any phase of a drafting career or related career.
- . Make a working drawing of student's choice utilizing both orthographic and isometric methods.
- . Allow students to interview a draftsman and report their findings to the class.

RESOURCES

Handout #2, and #3

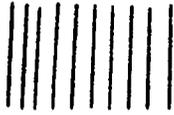
Everyday Sketching and Drafting by J. W. Giachino, Henry J. Beukema, American Technical Society, Chicago, Illinois

Handout #4
D.O.T.

Form C

SKETCHING: DEFINITION AND PRACTICE

Straight Line -- Parallel Line



Vertical

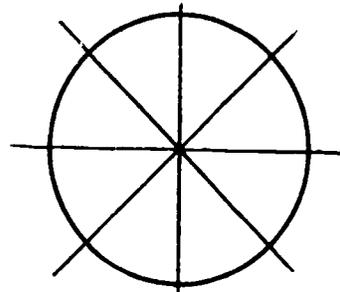
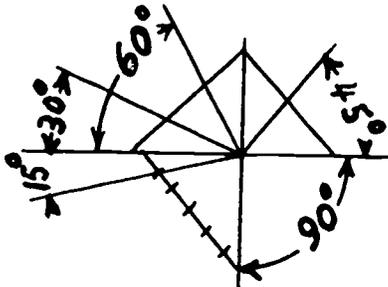


Horizontal

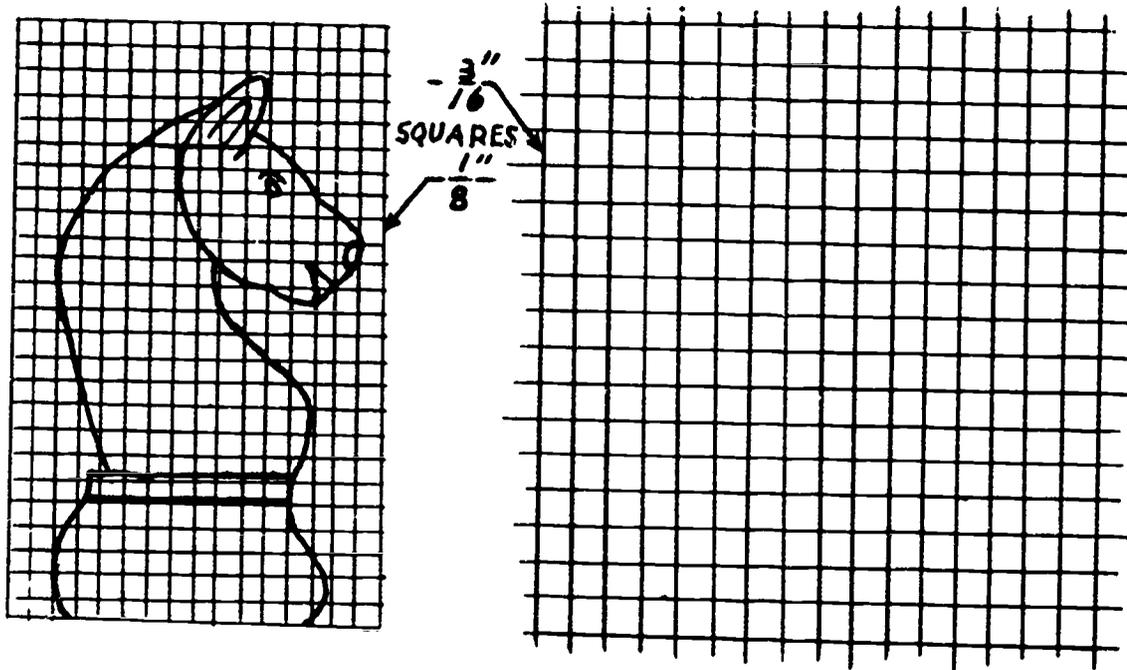


Inclined

Make one line as a guide and use sight to repeat process for parallel line construction. Position of hand and direction of line for ease and accuracy. Practice making ten (10) of each. Angles: Begin with horizontal and vertical axis. Divide one quadrant each into two parts, three parts and six parts.



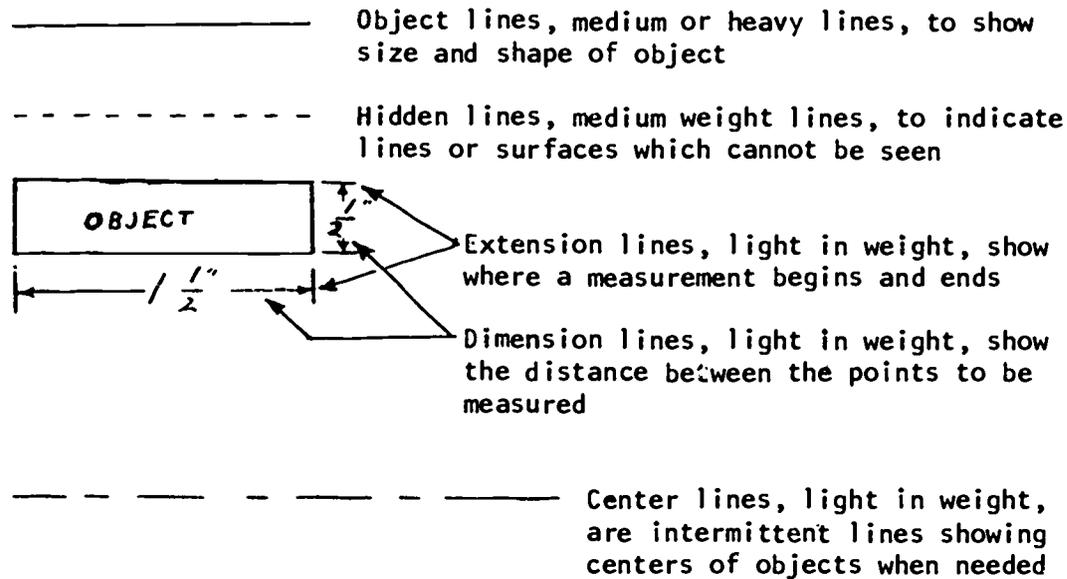
Start with vertical and horizontal axis and as many lines as needed through center for accuracy. Mark the radius on each line. Practice angle breakdown and circle development. To reproduce irregular curves: Cross hatch whatever you want to reproduce with squares large or small depending on the size desired in the reproduction.



UNIT 31
Handout #2

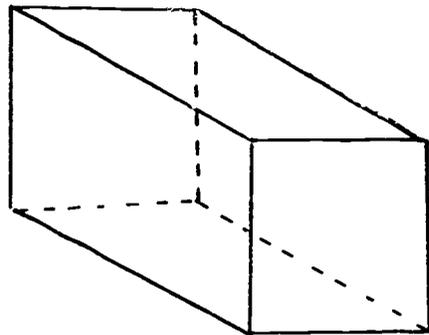
STANDARD DRAFTING INFORMATION AND PRACTICE

Alphabet of lines:



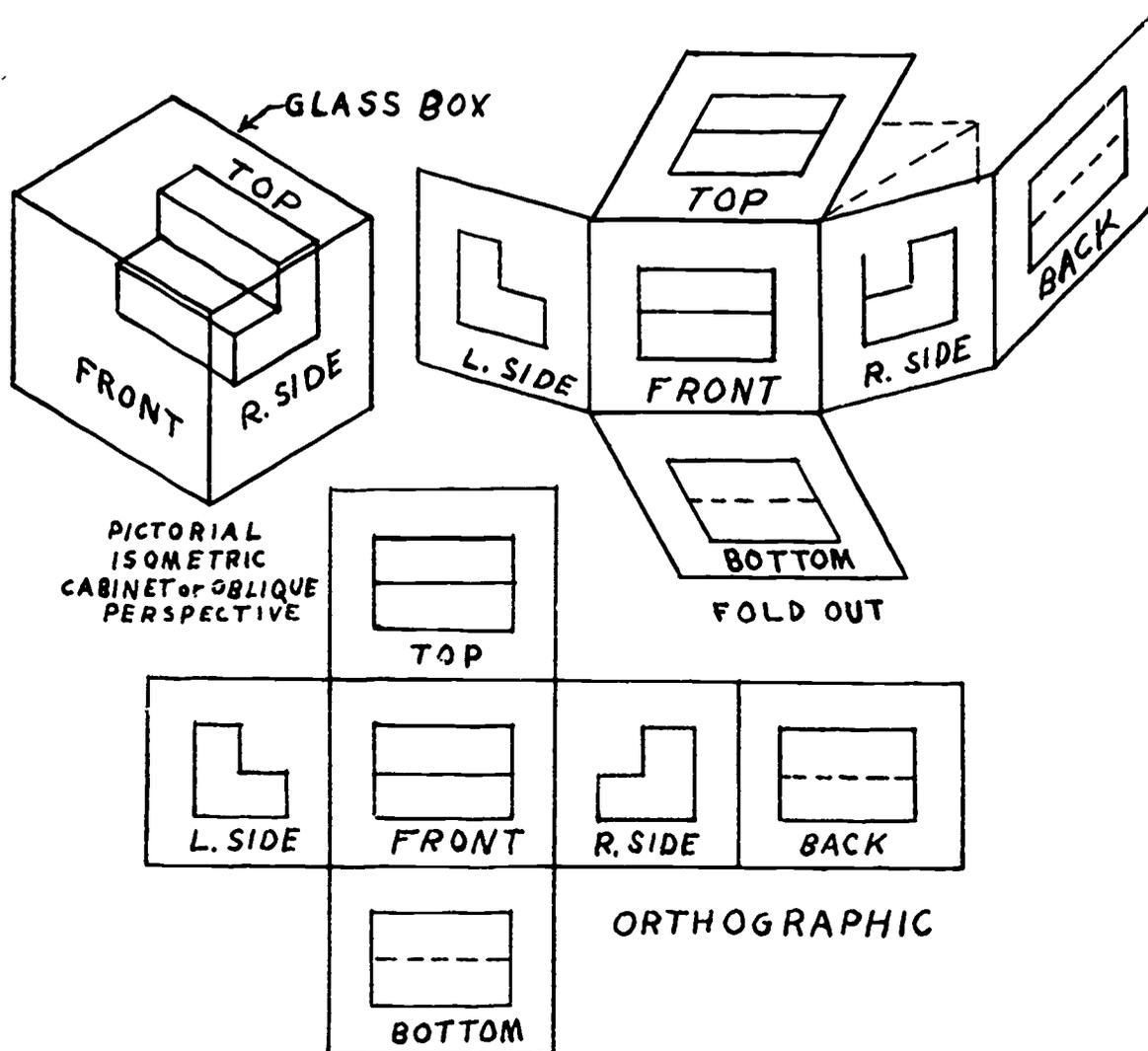
The alphabet of lines is standard and is used by all draftsmen.

Application of lines: Draw two squares slightly offset to each other. Connect like corners with lines making the appearance of a three-dimensional object. Erase the lines that are behind one of the surfaces that you can see and replace them with short dash lines (hidden lines).



You have sketched a cabinet-type, three-dimensional drawing using vertical, horizontal, and slanted lines. By using the short dash lines to replace the ones you can't actually see, you have applied one of the standard principles of drawing. By being able to visualize the lines that should be replaced, you have "caught the vision" of three-dimensional drawing.

UNIT 31
Handout #3



To view an object as having three dimensions and be able to convey that sight to a drawing on paper has been standardized for the draftsman as to procedure.

Pictorial drawing is of three types: isometric, cabinet or oblique and perspective. The isometric type is the one used here at the top left.

The views of an object or the orthographic drawing is standard as laid out above center. The number of views drawn is determined by--as many as it takes to fully explain the object.

VOCABULARY

1. Apprentice draftsman
2. Architectural drafting
3. Checker
4. Designing draftsman
5. Detail draftsman
6. Detail drawing
7. Engineering drawing
8. Horizontal lines
9. Inclined lines
10. Isometric projection
11. Junior draftsman
12. Mechanical drawing
13. Orthographic projection
14. Parallel lines
15. Perspective view
16. Pictorial drawing
17. Rendering
18. Senior draftsman
19. Technical illustration
20. Topographical draftsman
21. Tracer
22. Vertical lines

EVALUATION

1. How are selected vertical lines used in sketching?
2. Why is it necessary for draftsmen all over the world to use the same symbolic lines in drawing?
3. Why is orthographic drawing also called a working drawing?
4. At what angle from the base line are inclined lines made in all isometric drawing?
5. List some advantages of each of the following types of drawings:
(a) Orthographic (b) Perspective (c) Isometric
6. How may sketches be used in every life?
7. List the areas in drafting in which a person can earn a living.
8. What are some subjects a student should study if he is planning a career in drafting?

Key:

1. A person's sight and natural tendency to stay vertical will help him establish a vertical line, then he can make other lines using this guide.
2. The difference in language and interpretations make it necessary to have some standard of communication.
3. Orthographic drawing is detail drawing of different directions of looking at an object and gives dimensions, size and shape description.
4. 30° from the base line 
5. Orthographic - shows true shape and size of a surface
Perspective - it is as it would appear in a photograph
Isometric - means equal measure - equal angles at which sides are drawn. Shows three sides and may be drawn to size.
6. Sketches may be used to convey a particular message to a number of persons that you may not be able to talk to.
7. Some areas are mechanical, electrical, architectural, structural, marine, topographical and patent.
8. Mathematics, physical sciences, mechanical drawing.

UNIT 32: BUILDING TRADES
(Suggested Time: Five Days)

Behavioral Objectives

1. Upon completion of this unit, the student will be able to name the three broad classifications of the building trades and list three occupations associated with each classification.
2. During the study of this unit, the student will receive actual experience by working in the lab with one or more of the basic building materials in a scheduled laboratory project.
3. The student will be able to sketch the floor plan of a cabin consisting of kitchen, bathroom, livingroom, and at least one bedroom using the standard symbols used in architectural drawing.
4. On a fifty word test made from handouts 2A and 4C, the student will be able to correctly define at least twenty-five of the vocabulary words listed.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
. Discuss the objectives of this unit and make assignments on building trade occupation exploration.	Handout #1 Handout Form "A"
. Discuss the different classifications of building trades and occupations that are grouped under each classification.	Handouts #1, #2, and #2A
. Discuss employment projections, and educational requirements of the building trade careers and training for entry level employment.	Handout #3 Obtain current wage scale in local community
. Discuss drawings of building and symbols and terms used in drawing.	Handouts #4, 4A, 4B, and 4C
. Students may draw floor plan using building trade symbols.	Handout #4B
. Make transparencies of Handouts #4, 4A, and 4B	Handouts #4, 4A, and 4B

INSTRUCTIONAL

- . Secure resource speaker
- . Unit Test

ENRICHMENT

- . Discuss the project of making a brick paper weight.
- . Allow students to make jewelry box.
- . Repair water faucet.
- . Allow students to flange and solder copper tubing or teacher may choose a project that is in the building and trade industry.

RESOURCES

Handout Form "B"

Project #1 and #1A

Project #2

BUILDING TRADES

Building trades craftsmen are employed mainly in the construction, maintenance, repair and alternation of homes and other types of buildings, highways, airports, and other structures, including substantial work involved in the Nation's missile and space programs.

These building trades have been classified generally by material and skills used in these trades. These classifications are: carpenters, painters, plumbers, pipe fitters, bricklayers, operating engineers (construction machinery operators), and construction electricians. The people who work these trades are journeymen (craftsmen) who have a high level of skill and a sound knowledge of assembly and construction operations. They are often assisted in their work by apprentices, tenders, and laborers. The work of these journeymen are grouped into three broad classifications--structural, finishing, and mechanical.

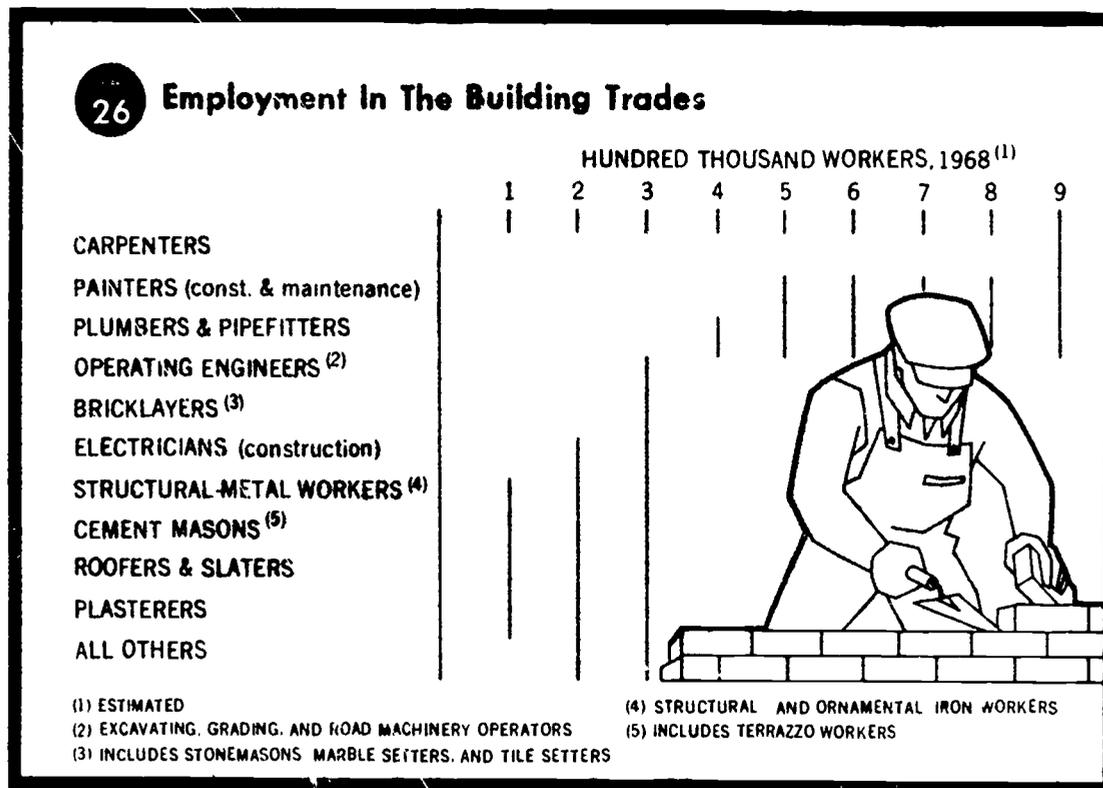
1. Occupations mainly concerned with structural work are:
Carpenters, operating engineers (construction machinery operator), bricklayers, structural iron workers, ornamental iron workers, reinforcing-iron workers, riggers, machine movers, boilermakers, cement masons, and stove masons.
2. Occupations mainly concerned with finishing work are:
Lathers, plasterers, marble setters, tile setters, terrazzo workers, painters, paperhangers, glaziers, roofers, floor covering installers, and asbestos workers.
3. Occupations mainly concerned with mechanical work are:
Plumbers, pipe fitters, construction electricians, sheet metal workers, elevator constructors, and millwrights.

BUILDING TRADES

Building trades craftsmen work mainly in contract construction or maintenance. Maintenance craftsmen work directly for business firms or government agencies and some are self-employed.

Building trades craftsmen who work for contract construction industry are employed by general and special-trade contractors. General contractors may be classified as building (residential, commercial, or industrial), highway, or heavy construction contractors. Most general contractors limit their operations to one of these activities. They construct buildings and other structures such as dams, bridges, tunnels, and roads, taking full responsibility for a complete job.

Special-trade contractors usually do the work of only one trade such as painting, carpentry, electrical work, or of two or more closely related trades, such as plumbing and heating or plastering and lathing.



OCCUPATIONS IN BUILDING TRADES

1. Asbestos and Insulating Workers cover pipes, boilers, furnaces, ducts, and other related equipment with insulating materials such as cork, felt, asbestos, fiberglass, polyurethane, and magnesia.
2. Cement Masons finish exposed concrete surfaces, check forms, direct the pouring of concrete, and supervise the laborers.
3. Construction Electricians lay out, assemble, install, and test electrical fixtures, apparatus, and wiring used in electrical systems.
4. Boilermakers erect and repair boilers and pressure vessels.
5. Marble Setters install marble, shop-made terrazzo panels, and structural glass when it is used in a building interior.
6. Tile Setters attach tile on walls, floors, and ceilings.
7. Terrazzo Workers finish ornamental concrete used mainly for floors.
8. Millwrights move and install heavy industrial equipment and machinery.
9. Ornamental Iron Workers install metal stairways, cat walks, floor gratings, iron ladders, metal cabinets, and safety deposit boxes.
10. Structural Iron Workers erect the steel framework of buildings, bridges, floor decking, and the doors and frames of vaults.
11. Reinforcing Iron Workers set steel bars in concrete forms to reinforce concrete structures.
12. Riggers set up and rig hoisting equipment.

BUILDING TRADES

An apprenticeship is a prescribed period of on-the-job training supplemented by related classroom instruction. Formal apprenticeship agreements are registered with a state apprenticeship agency or the U.S. Department of Labor's Bureau of Apprenticeship and Training. The apprenticeship method is the major method for entering the building trade occupations.

Generally an apprentice is required to be between the ages of 18 and 25 and in good physical condition. The maximum age limit may be waived for veterans or others with experience or special qualifications.

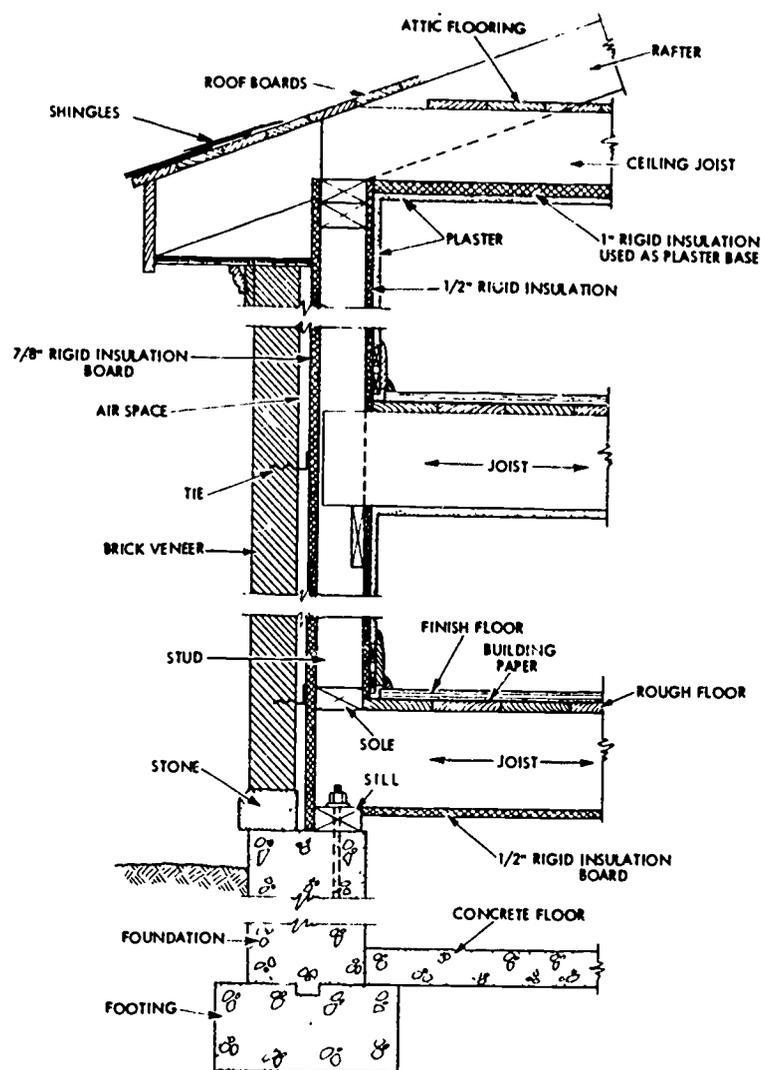
An apprentice must have a high school education or its equivalent. Courses in math and science are desirable and in some cases required.

A formal registered apprenticeship agreement, either state or national, generally stipulates a training period of two to five years of relatively continuous employment and training, in addition to a minimum of 144 hours per year of related classroom instruction.

The apprentice is paid at an advancing rate, usually starting at 50 percent of the journeyman's pay. The apprentice's rate of pay increases at six months or one-year intervals until a rate of about 90 percent of the journeyman's rate is reached in the final months of training.

In many localities, craftsmen, most commonly construction electricians and plumbers, are required to have a journeyman's license to work at their trade. To qualify for such licenses, they must pass an examination, showing a well-rounded knowledge of the job and of state and local regulations.

UNIT 32
Handout #4



The divisions of labor as they apply to the construction of a house are:

1. STRUCTURAL

Carpenter - Footing, foundation and flooring, walls (studs and insulation board), floors (sills, joist, rough floors and floors), roof

Cement Mason - Forms

Bricklayer - Stone and brick veneer

2. MECHANICAL

Electrician - Wall outlets, electrical wiring

Plumber - Pipes for bathroom and kitchen fixtures

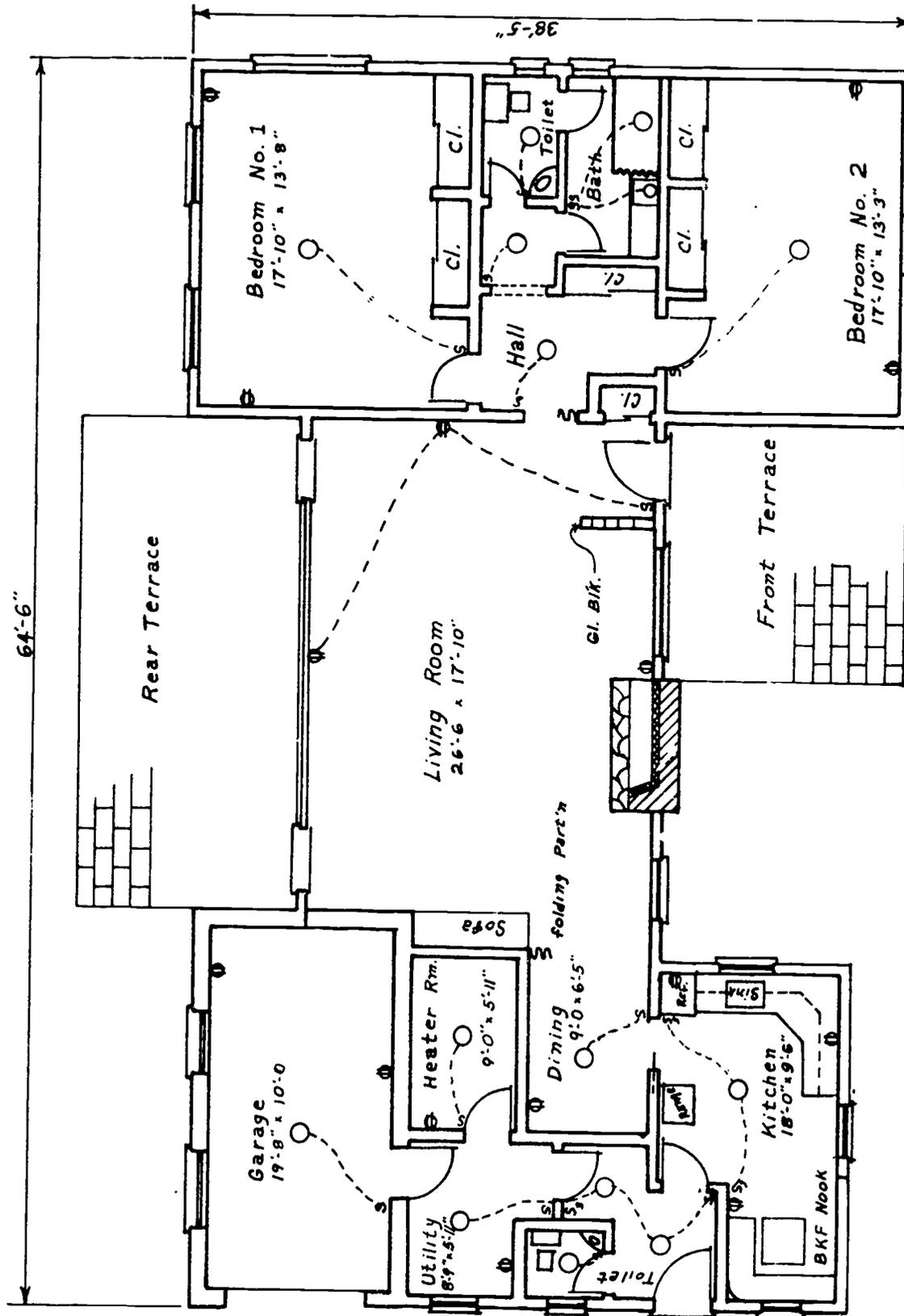
3. FINISHING

Plasterer - Plaster walls and ceiling

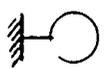
Painter - Painting, wood finishing

Rofer - Shingles

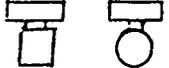
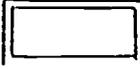
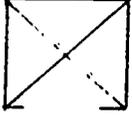
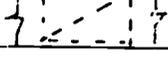
UNIT 32
Handout #4A

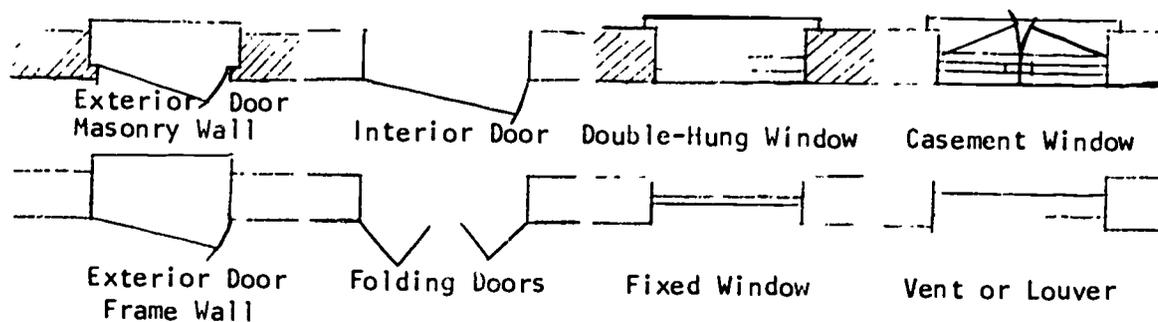


ELECTRICAL SYMBOLS

	Drop Cord		Switch, Single-pole
	Ceiling Outlets		Switch, Three-way
	Duplex Outlet		Bell
	Wall Bracket		Buzzer
	Floor Outlet		Telephone
	Lighting Panel		Ceiling Outlet (Fan)
	Range Outlet		Weather Proof Outlet

HEATING SYMBOLS

	Kitchen Exhaust		Water Closet
	Warm Air Inlet		Bath Tub
	Exhaust Duct		Sink, Double & Single
	Cold Air Return		Lavatory
	Supply Duct		Shower Stall
	Second Floor Supply		Floor Drain
	Second Floor Return		Water Heater



BUILDING TRADES - VOCABULARY

- | | | |
|-----------------------------|-----------------|-------------------|
| 1. Frame construction | 21. Zoning | 41. Lumber grade |
| 2. Masonry construction | 22. Scale | 42. Roof pitch |
| 3. Service entrance | 23. Floor plan | 43. Lintel |
| 4. National Electrical Code | 24. Foundation | 44. Septic tank |
| 5. Perimeter heating | 25. Plot plan | 45. Soil pipe |
| 6. Reflective insulation | 26. Footing | 46. Plumbers trap |
| 7. British Thermal Unit | 27. Floor joist | 47. Relief vent |
| 8. Sound transmission | 28. Studs | 48. Vent stack |
| 9. Expansion joint | 29. Plate | 49. Heat loss |
| 10. Tensile strength | 30. Weep holes | 50. Heat pump |
| 11. Working drawing | 31. Flashing | 51. Humidity |
| 12. Prefabrication | 32. Sheeting | 52. Flue |
| 13. Stepped footing | 33. Subfloor | 53. Architect |
| 14. Electrical load | 34. Pier | 54. Bid |
| 15. Plumbing fixture | 35. Column | 55. Contractor |
| 16. Vapor barrier | 36. Frost line | 56. Curtain wall |
| 17. Building code | 37. Crawl space | 57. Caulking |
| 18. Pour insulation | 38. Pilaster | 58. Grout |
| 19. Termite shield | 39. Grade | 59. Pillar |
| 20. Brick veneer | 40. Span | 60. Radiant heat |

POST TEST

From the architectural drawing (Handout #4A) answer the following questions:

1. What are the over-all dimensions of the house?
2. How many windows are in the floor plan?
3. How many closets are shown, including linen closets?
4. From the floor plan how can you tell there is no basement?
5. What is the size of the livingroom?
6. How many closets are shown opening into the bedrooms?
7. How many windows are shown in the bedrooms?
8. How many doors are shown in the kitchen?
9. What is the size of the kitchen?
10. How many exterior doors, including garage, are shown?
11. How many windows are shown in the kitchen?
12. How many ceiling outlets are there shown in the floor plan?

KEY

- | | |
|---------------------|-------------------|
| 1. 64' 6" X 38' 5" | 7. 4 |
| 2. 17 | 8. 2 |
| 3. 6 | 9. 18' 0" X 9' 6" |
| 4. No stairs. | 10. 3 |
| 5. 26' 6" X 17' 10" | 11. 3 |
| 6. 4 | 12. 15 |

BRICK PAPER WEIGHT

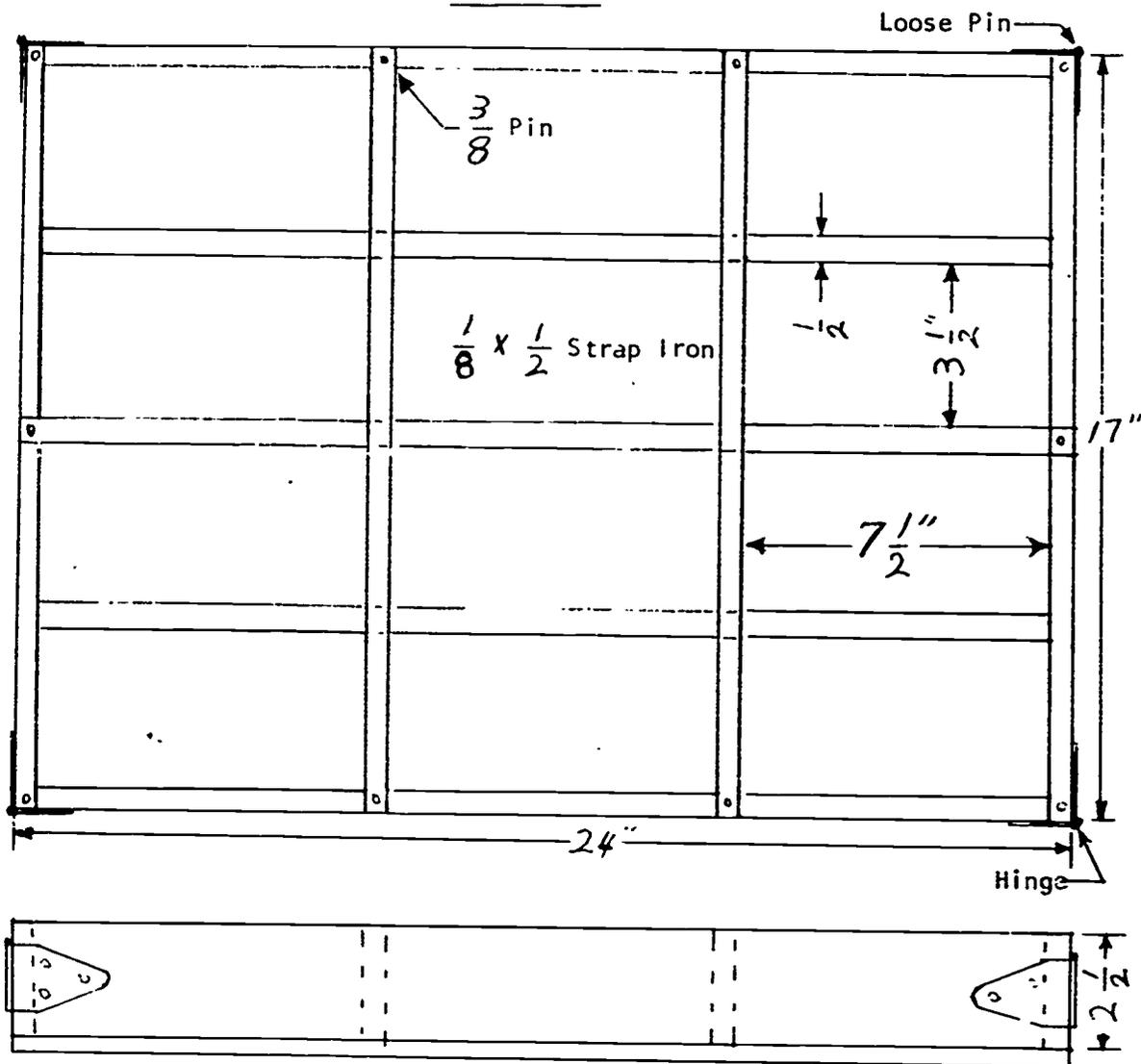


PROCEDURE

1. Mix two parts sand and one part portland cement and water until mixture is fairly thick.
2. Pour into molds that have been well oiled and all excess oil wiped off. Work cement well into corners and sides.
3. Let bricks set for twenty-four hours. Remove from molds. Let bricks set for twenty-four additional hours.
4. If brick is rough, smooth by rubbing on concrete with water and dry cement and let dry for twenty-four more hours.
5. Spray brick with quick-dry white enamel.
6. Cut out stencil of hog and spray red with quick-dry enamel.
7. Place another drawing of hog on brick and using carbon paper, go over all lines that make up legs, ear, eye, nose, and tusk. With a small brush, go over these lines with black paint.

UNIT 32
Project #1A

BRICK FORM



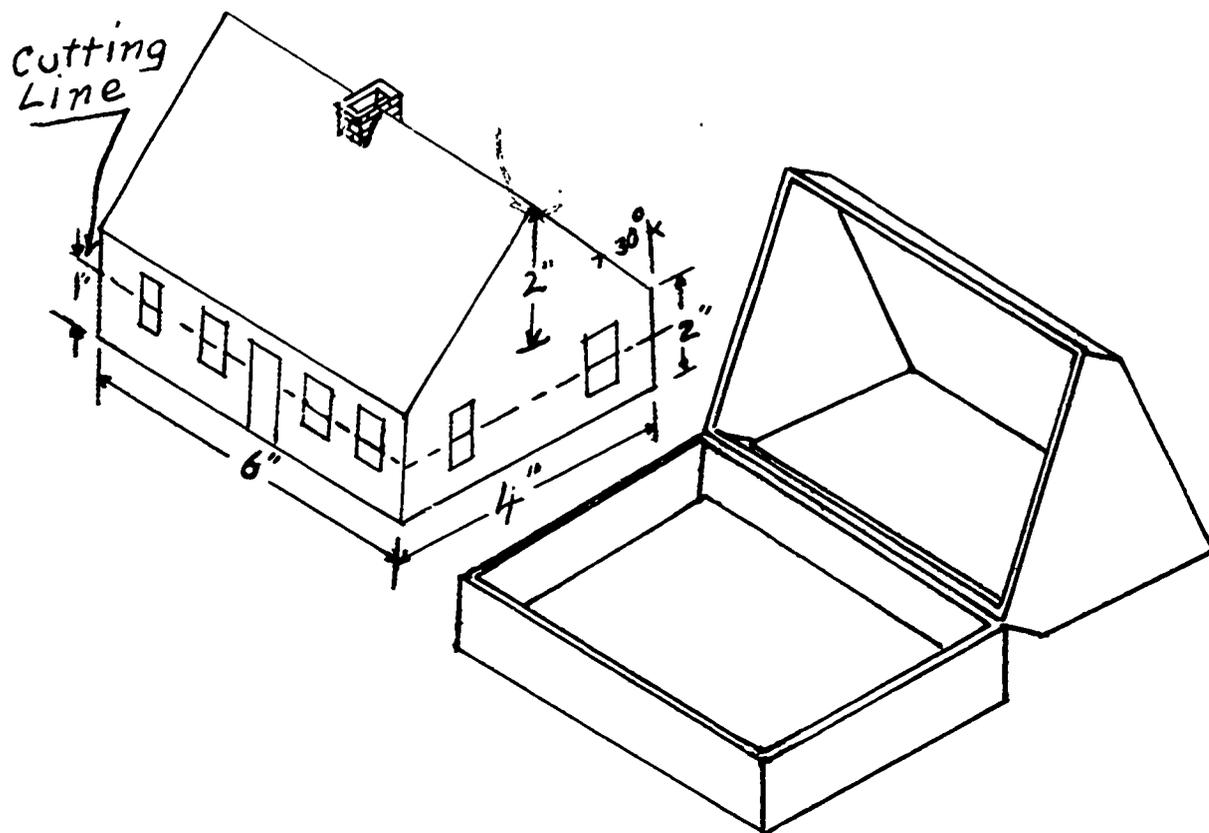
The brick form is to be made well in advance of the time it is to be used to be sure it is functional. The dividers, sides, and ends are made of 3/4 inch material. The bottom can be of 1/2 or 3/4 inch exterior plywood. The dividers are fastened permanently to the bottom. The outside frame is held in place with 3/16 inch pins going through the metal strips, at the top, and into the bottom. This allows the sides to be removed so the bricks can be removed. The frame is hinged on all corners with one having a loose pin which can be removed.

Bill of Materials

1	24 X 17 X 3/4" plywood (bottom)	2	17 X 3/4 X 1/8 strap iron
2	2 1/2 X 17 X 3/4 " pine (sides)	13	7 1/2 X 3/4 X 1/8 strap iron
2	2 1/2 X 15 1/2 X 3/4" pine (dividers)	4	8 1/8 X 3/4 X 1/2 strap iron
2	2 1/2 X 24 X 3/4" pine (sides)	2	7 7/8 X 3/4 X 1/2 strap iron
3	2 1/2 X 22 1/2 X 3/4" pine (dividers)	10	3/6 X 4" steel pins
4	2 X 6 strap hinges with screws	1/4 lb.	8d box coated nails

UNIT 32
Project #2

JEWELRY BOX



BILL OF MATERIALS

1	1/2 X 3 X 5 inch	White Pine (Bottom)
2	1/2 X 3 X 4 inch	White Pine (Ends)
2	1/2 X 2 X 6 inch	White Pine (Back and Front)
2	1/2 X 3 1/2 X 6 inch	White Pine (Top)
1	1/2 X 2/4 X 2 inch	White Pine (Chimney)
1 pr.	1/2 X 1 inch	Brass Hinges
1		Brass Fastener

UNIT 32
Project #2, cont.

PROCEDURE

1. Cut bottom to given size.
2. Ends are cut from 1/2 X 3 X 4 inch material. Measure up 2 inches from one end and lay out 30° lines in order to form gables. (See drawing)
3. Cut back and front. Bevel one edge at 30° to match cut made on end pieces.
4. Cut top pieces and bevel edges at 30° to make the upper roof line.
5. To assemble use #18 X 1 inch wire brad and quick setting glue on each joint. When nailing, make sure you do not put nails in the area at the cutting line.
6. Fasten end pieces to bottom of box. Ends should lap over bottom.
7. Fasten sides to bottom and ends. If necessary, trim or sand excess wood to make all joints smooth and neat.
8. Fit top to box. Make sure you have joints tight before fastening.
9. Draw cutting line around box 2 inches from bottom, saw box in half forming a bottom and lid. Sand edges and attach hinges and latches.
10. Cut a 60° notch in the 1/2 X 3/4 X 2 inch block to be used for chimney. This will allow it to fit on the roof.
11. Sand and finish any color or method desired.
12. The inside may be lined with velvet or other material.

SOURCES OF INFORMATION

American Federation of Labor and Congress of Industrial Organization
Building and Construction Trades Department
815 E Street, N.W.
Washington, D.C.

International Association of Heat and Frost Insulators and Asbestos Workers
1300 Connecticut Avenue, N.W.
Washington, D.C. 20036

Bricklayer, Mason, and Plasterers International Union of America
815 Fifteenth Street, N.W.
Washington, D.C. 20005

United Brotherhood of Carpenters and Joiners of America
101 Constitution Avenue, N.W.
Washington, D.C. 20005

International Brotherhood of Electrical Workers
1200 Fifteenth Street N.W.
Washington, D.C. 20036

Brotherhood of Painters, Decorators and Paperhangers of America
1925 K Street, N.W.
Washington, D.C. 20006

United Association of Journeymen and Apprentices of the Plumbing and
Pipe Fitting Industry of the U. S. and Canada
901 Massachusetts Avenue, N.W.
Washington, D.C. 20001

Sheetmetal Workers International Association Inc.
1000 Connecticut Avenue, N.W.
Washington, D.C. 20036

UNIT 33: FOREST INDUSTRY CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

Upon completion of this unit:

1. The student will recognize the career opportunities related to forest management, harvesting, processing and utilization of the forest industry.
2. The student will be able to classify, on a written test, the by-products of forest industries to the satisfaction of the teacher.
3. The student will be able to identify the major forest product areas in the United States as measured by teacher-made test.
4. The student will become familiar with various tools, machines, and processes in utilizing forest products.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Discuss general occupation clusters within the forest industry.. Distribute information sheet on occupational breakdown in the five forest career areas.. Discuss the utilization of wood products.<ol style="list-style-type: none">1. Furniture Wood<ol style="list-style-type: none">A. LumberB. PlywoodC. Particle BoardD. Hard Board2. Building Material<ol style="list-style-type: none">A. LumberB. Plywood3. Wood By-Products<ol style="list-style-type: none">A. Particle BoardB. Hard BoardC. Pulp and PaperD. Acoustical & Insulating MaterialE. Chemical. Discuss major forest product areas in the United States.<ol style="list-style-type: none">1. Pacific Coast Forest2. Rocky Mountain Forest3. Northern Forest4. Southern Forest	<p>Handout Nos. 1, 1A, and 1B</p> <p>Resource Speaker may be obtained by writing National Forest Products Association, 1619 Mass. Ave., Washington D.C. 20036</p> <p>Handout Nos. 2 and 2A</p>

INSTRUCTIONAL

5. Central Hardwood Forest
 6. Tropical Forest
- . Study tools, processes, and machines of this industry.
 - . Show film A.B.C.'s of Hand Tools.
 - . Use student outline for exploring an occupation.
 - . Select a lab activity which can be completed in the allotted time for this unit. Plans of three projects are included. You may select one of those or one of your own.

ENRICHMENT ACTIVITY

- . Assign a student or a group of students to explore in depth and write a report on a selected career area.

RESOURCES

General Motors

Form A

REFERENCE

Ark. ESD Publications

Ark. Industrial Progress
1950 - 1970

Average Covered Employ-
ment & Wages by Industry
and County

Manufacturing Skills
Survey, Pulaski County

Annual Manpower Planning
Report, L.R., N.L.R.,
Metro. Area, Pulaski &
Saline Counties

Area Manpower Require-
ments, L.R., N.L.R.,
SMSA, Pulaski and
Saline County

Superintendent of Docu-
ments, U.S. Government
Printing Office,
Washington, D.C., 20402

1. Manpower Report of
the President
2. U.S. Manpower in the 70's
3. Employment Outlook for
Tomorrow's Jobs

OPPORTUNITIES IN WOODWORKING INDUSTRIES

Forestry

Several hundred new foresters are needed every year. The forester does many kinds of work, both indoors and out. He is concerned with growing and protecting trees, planting seedlings, building roads, fighting fires, and controlling insects. He helps decide when trees are ready to harvest. The forester helps decide the best use for each log, whether it be lumber, paper, or other.

Forest Service Management

The Forest Service is a federal agency dedicated to the best use, development, and conservation of our nation's forest lands. Rangers, fallers, loggers, and many other intriguing jobs are available for those who enjoy being outdoors.

Building Construction

Demands for homes and other structures provide a considerable need for carpenters and other woodworking craftsmen. Almost four out of five single family homes are built with wood construction. The average home contains about 13,000 board feet of lumber. Other areas requiring craftsmen and wood products include farm structures, fences, decking, schools, churches, and commercial buildings.

Construction Specialist

Skilled workmen are needed to construct and install building components and laminated beams used in large buildings.

Industrial Woodworker

The cabinet and furniture manufacturing plants offer rewarding futures to professional, skilled, and semiskilled workmen who help fabricate the thousands of products turned out by these plants.

Patternmaker

Our industries need skilled patternmakers--workmen who can shape wood to dimensions of close tolerances. Patterns are used in making metal casting for many of the products we use.

Research Technician

Technicians who perform a variety of tasks are needed in the analysis and testing of forest products.

Industrial Education Teacher

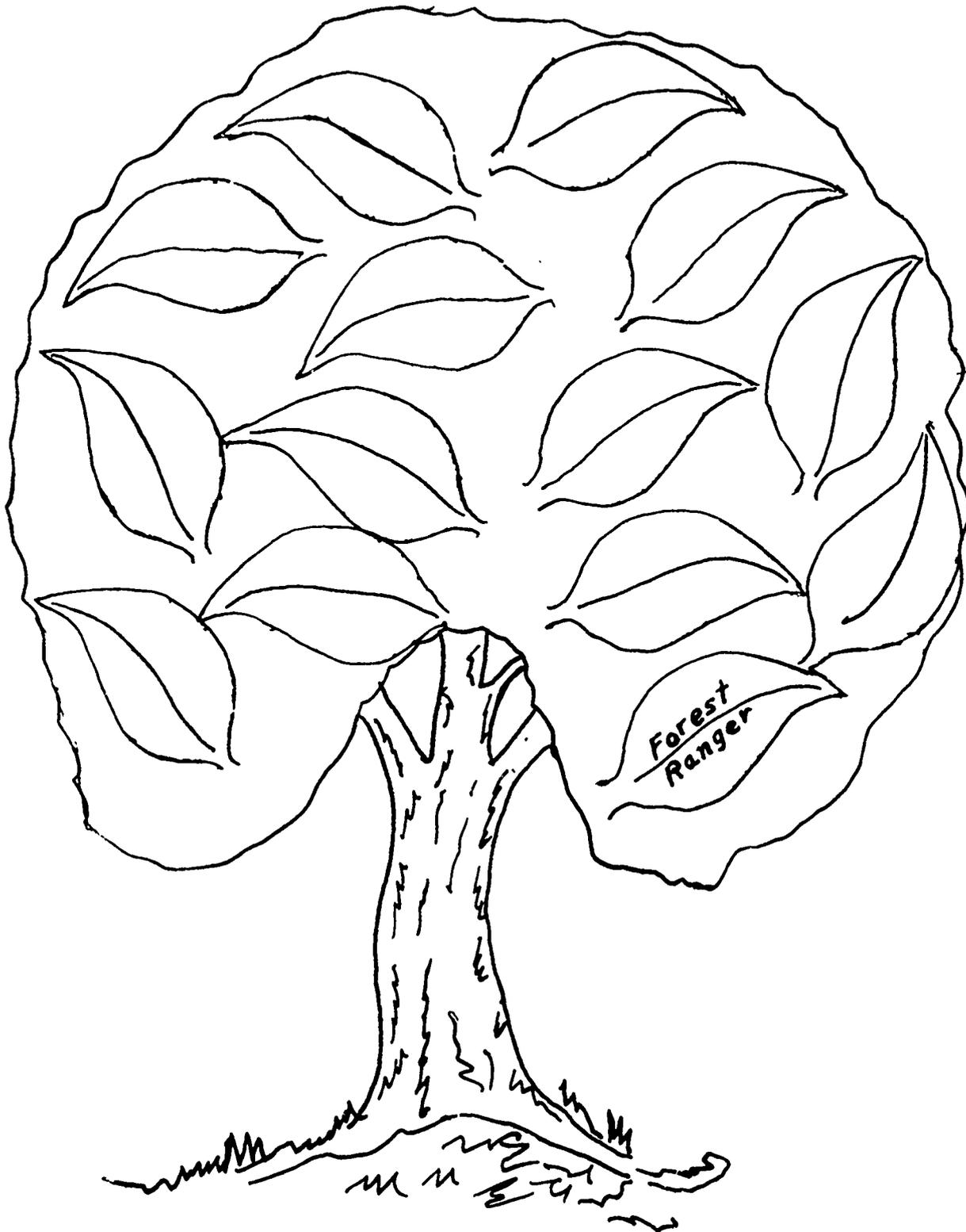
Teaching industrial education provides an opportunity to help guide students toward becoming a part of our industrial democracy. The industrial education teacher acquaints his students with materials, tools, machines, and processes used by industry.

Engineer

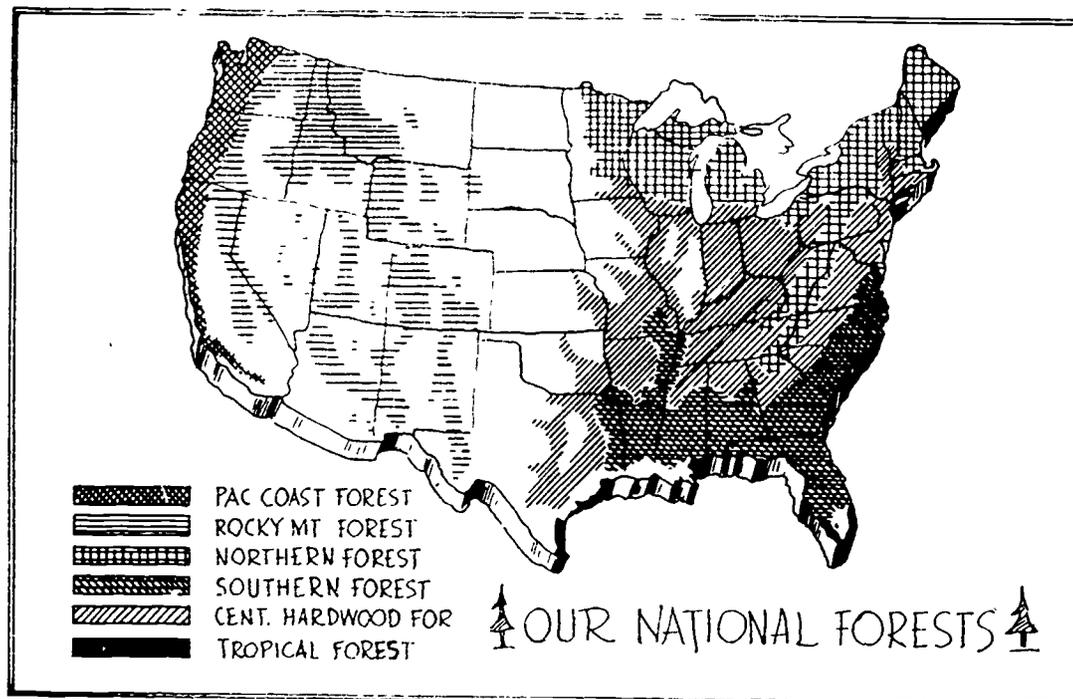
Engineers are needed to analyze and test forest products and to explore and develop new products through research.

UNIT 33
Handout #1B

- Complete the tree by listing the particular jobs associated with the forest industry.

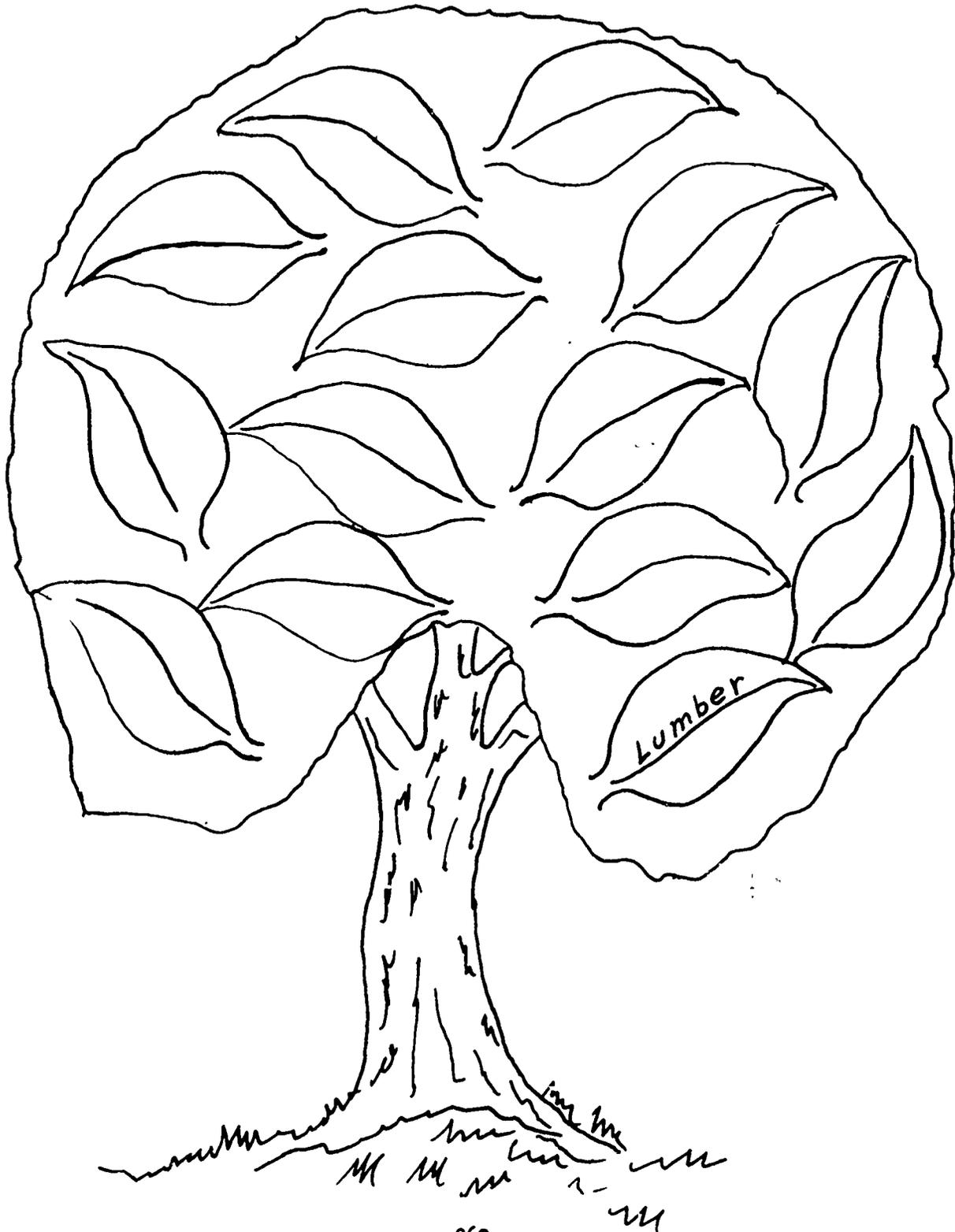


LUMBER PRODUCING SECTIONS IN THE UNITED STATES



- The United States Forest Service classifies the lumber producing areas of our country into five major sections as shown on the map above.
- Pacific Coast forests produce Douglas fir, western hemlock, redwood, red cedar, and ponderosa pine.
- Rocky Mountain forests are a source of lodgepole pine, Douglas fir, western larch, and blue spruce.
- The Northern forests give us red, black and white spruces, balsam fir, hemlock, chestnut, maple, white and pitch pines.
- From the Central hardwood forests we obtain oak, hickory, gum, beech, and elm.
- The Southern forest group includes longleaf, shortleaf and loblolly pines, willow, oak, red gum, southern cypress, and beech.
- There is a sixth area of tropical forest; it is small and insignificant. Mangrove, royal, and thatch palms, and yew trees are grown there.

. Complete the tree by listing the by-products that come from the forest.



UNIT 33
Handout #3

BASIC WOODWORKING TOOLS AND MACHINES

- I. Lay-Out Tools
 - A. Marking Devices (Pencil, Knife, Scriber, Scratch Awls, Center Punch, Prick Punch)
 - B. Rules (6 in., 12 in., 2 ft., tape, Zig Zag)
 - C. Squares (Framing, Try, Try and Miter, Combination, Sliding T Bevel)
 - D. Miscellaneous (Straight Edge, Protractor, Dividers, Compass)
- II. Saws, Hand
 - A. Crosscut
 - B. Rip
 - C. Back
 - D. Coping
 - E. Key Hole and Compass
- III. Hand Planes
 - A. Jack
 - B. Smoothing
 - C. Block
 - D. Bullnose
 - E. Fore
 - F. Jointer
 - G. Scraper
 - H. Spoke Shave
- IV. Drills
 - A. Power Drills
 1. Drill Press
 2. Electric Hand Drill
 3. Drill Bits (Twist, Tapered, Square, and Straight Shank)
 4. Boring
 - a. Brace
 - b. Bits (Single and Double Twist, Augers, Expansive, Foerstner)
- V. Hammer
 - A. Claw
 - B. Tack
- VI. Power Saws
 - A. Table
 - B. Radial Arm
 - C. Jig or Scroll
 - D. Bandsaw
 - E. Portable Circle Saw
 - F. Saber

UNIT 33

Handout #3, cont.

VII. Sanders

- A. Belt
- B. Drum
- C. Vibrator

VIII. Miscellaneous Power Tools

- A. Wood Lathe
- B. Router or Shaper - hand and table
- C. Surfacer
- D. Jointer

IX. Finishes

- A. Transparent - Varnish, lacquer, plastic, shellac
- B. Pigment Base - Paints, water, oil, spirit
- C. Oil - Natural linseed, tung, wax

X. Hardware

- A. Hinges
- B. Catches
- C. Latches
- D. Knobs and Pulls
- E. Ornaments

XI. Fastening Devices

- A. Nail - Brad, box common, casing, finishing, cut
- B. Screws - Round head, flat, oval, miscellaneous square, Phillip
- C. Miscellaneous - Corrugated fastener, splines, corner brackets, dowel rods

BOOKS

Units in Woodworking, McCormic and Mathers Publishing Company, Inc.,
Wichita, Kansas

Encyclopedia of Careers and Vocational Guidance, Doubleday & Co.,
Garden City, New York

Practical Finishing Methods, Rockwell Manufacturing Co., 400 N. Lexington,
Pittsburgh, Pennsylvania

PAMPHLETS

Occupational Briefs on Woodworking Occupations, Science Research Associates,
259 Erie Street, Chicago, Illinois

POST TEST - HAND TOOLS

1. Lay-out tools are used to transfer shape and dimension of the object to be made to the materials being used. Name four of the main tools.

2. Name 3 kinds of hand saws and explain the use of each.

3. Name four kinds of hand planes.

4. Holes 1/4 inch or larger are usually bored with a _____ and bit.

5. Two kinds of power saws used to cut curves and scrolls are:

_____ and _____.

6. The two kinds of power saws used to make inside cuts are:

_____ and _____.

7. Name three kinds of stationary power saws and explain their use.

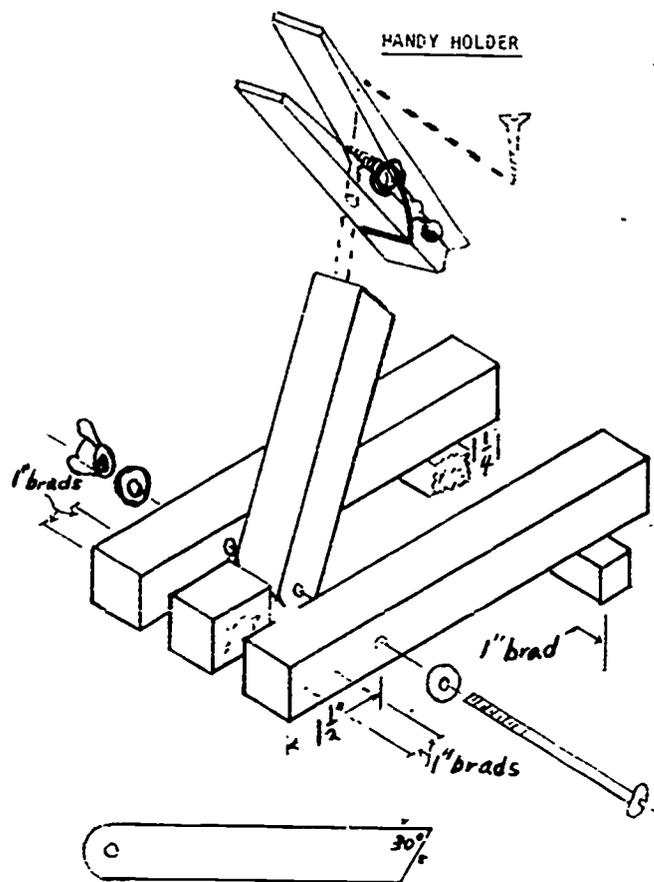
8. A power tool used to make cylindrical shapes by using various shaped chisels is a _____.

9. What are the three classifications of wood finishes?

10. What is meant by the term hardware?

11. Give three examples of hardware.

12. Name three methods of holding two or more pieces of wood together.



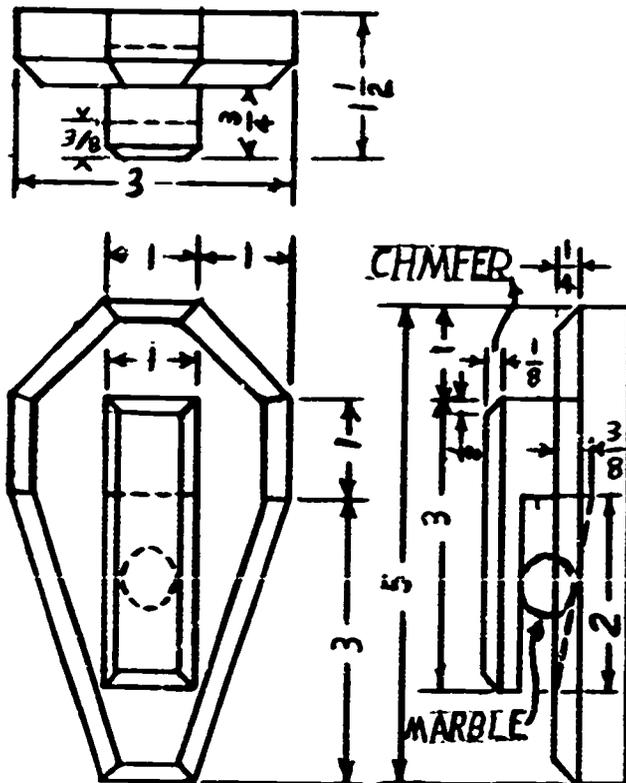
BILL OF MATERIAL

Pieces	Dimensions	Description
2	3/4 X 3/4 X 6	Soft White Pine
1	3/4 X 3/4 X 5	Soft White Pine
1	3/4 X 3/4 X 1	Soft White Pine
1	1/2 X 1/2 X 2 1/4	Soft White Pine
1	Regular	Clothes Pin
1	#6 X 3/4	Flat Head Wood Screw
6	1 inch	Wire Brads
2	3/16 inch	Flat Washers
1	3/16 X 2 5/8	Round Head Stove Bolt
1	3/16	Wing Nut
		Glue

PROCEDURE

1. Cut 3 pieces, 3/4 X 3/4 X 6 in. soft pine and 1 piece, 1/2 X 1/2 X 2 1/4 in.
2. Sand all rough edges.
3. Lay off and cut a 1 inch piece from one of the 6 inch pieces.
4. The remaining 5 inch piece - Round one end with a 3/8 in. radius and lay off a 30° line on the opposite end. Make these cuts with a band saw.
5. Lay out and drill holes in the 3 designated pieces.
6. Drill 1/8 in. hole in one side of clothes pin just behind the spring groove as indicated in drawing.
7. Glue and secure with wire brads the 1 inch block between outside pieces as shown in drawing.
8. Glue and nail bottom support (1/2 X 1/2 X 2 3/8 pc.) in place 1/4 in. from end.
9. Glue clothes pin to center piece and fasten with screw.
10. Place center piece in position and secure with bolt, washers, and wing nut.
11. Finish as indicated by instructor.

TOWEL HOLDER



BILL OF MATERIALS

- | | | |
|---|--------|--------------------------|
| 1 | Base | 3/4 X 3 X 5
soft wood |
| 1 | Holder | 3/4 X 1 X 3
soft wood |
| 1 | Marble | 5/8 to 3/4
diameter |
| 2 | | 1 Inch
finish nails |

The pieces of material will be precut and ready for the student to lay out chamfers.

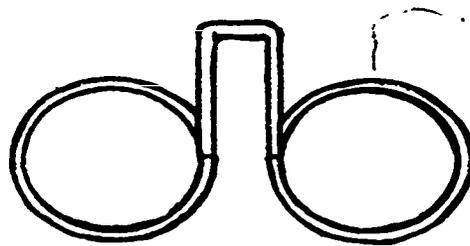
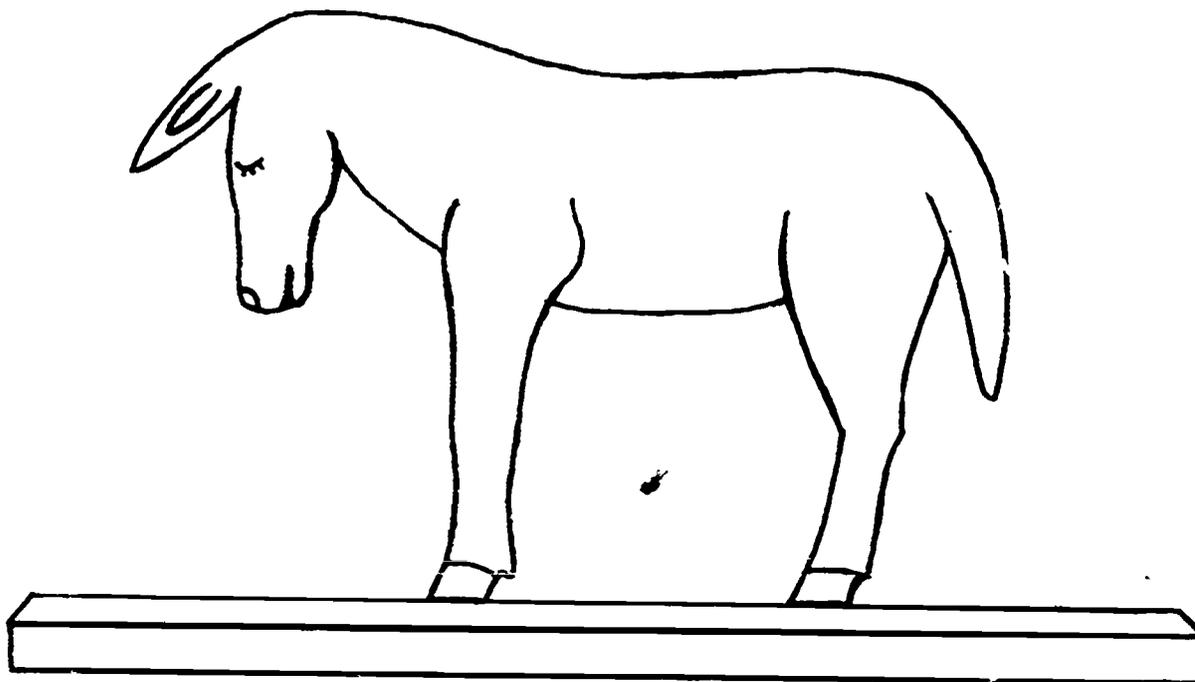
PROCEDURE

1. Plane out saw marks
2. Cut all corners
3. Chisel run for marble 1 inch wide and 3/8 inches deep and taper from 0 to 2 inches; 3/8 inches deep
4. Plane 1/4 chamfers on front side of base
5. Plane 1/8 chamfers on front side of holder
6. Glue and nail holder in place

HOW TO USE TOWEL HOLDER

1. Nail or screw to wall
2. Hold towel into place and lift directly up (1)
3. To take towel out lift towel up and pull to the left or right

SALT AND PEPPER SHAKER HOLDER



The pieces will be precut and ready for the student to start sanding.

BILL OF MATERIALS

1	1/2 X 3 1/4 X 5	Soft wood (white pine) for body
1	1/2 X 3 X 6 1/2	Soft wood (white pine)
1	Ft. 6 or 8 Gage	Soft wire, copper or aluminum, for making shaker holder
2		Plastic shakers with a rim edge
2	1 inch	Finish Nails

PROCEDURE

1. Plane chamfer on base,
1/8 in. X 1/8 in.
2. Sand smooth
3. Trace outline of eyes,
ears, shoulder, etc.
4. Stain if desired and
varnish.
5. Shape wire

UNIT: CAREER OPPORTUNITIES IN THE METAL INDUSTRIES
(Suggested Time: Five Days)

Behavioral Objectives

Upon completion of this unit, the student will (on written test or by teacher observation):

1. Be able to recognize several metals and know their properties and general use.
2. Be able to identify career opportunities in the metal industry.
3. Be familiar with the tools, hardware, machines, and processes common to the metal industry.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
Organize for this unit and make assignments for specific topics such as bulletin boards, special reports, individual or group posters. Distribute information sheets.	<u>Metal Work Technology and Practice by Ludwig, McKnight & McKnight</u>
. Basic reference used in this unit is the text-book.	
. Distribute cartoon-illustrated topic ideas.	<u>Packet of drawings by Kennedy of Arkansas Democrat</u>
. Explore metal career opportunities by students answering questions on career information form.	Form A
. Cover each general category Unskilled workers Semi-skilled workers Skilled workers Technicians Engineers	<u>D.O.T. 600 - 620</u>
. Discuss different classifications, characteristics, and general uses of metal.	<u>Metal Work Technology and Practice by Ludwig, pp. 9-15</u>
. Discuss the various tools, machines, and processes that are common to metal industries.	Handouts #1 and #2
. Discuss general safety rules for metal working industry and hand tools that will be used in the lab.	Handout #3
	Handouts #4 and #5

INSTRUCTIONAL

- . Distribute instruction sheets and go over procedure.
- . Administer unit test.

RESOURCES

Projects #1, #2, #3,
and #4

CLASSIFICATION AND GENERAL USES OF METAL

Metal may be classified into three groups.

- I. FERROUS: Those metals containing an iron base metal. These are broken into three classifications.

- A. Iron

1. Cast Iron - An iron base metal with a high carbon and other element mixture. Cast iron got its name from its use which is cast, or the process of remelting and pouring into a cast or mold. Different kinds of cast iron are made. Each is used for a specific purpose and the amount of carbon and other elements are carefully controlled.
2. Wrought Iron - An iron-base metal that is almost in its purest form. The carbon and other elements are .04 percent or 1 percent or less. It got its name from the word "wrought" which means fashioned, formed, ornamented, hammered in shape.

- B. Steel - An alloy with an iron base which is classified into two kinds or grades of steel.

1. Carbon Steel - An alloy of carbon and iron with the percentage of carbon base upon a point system of one percent or one percent carbon is .00 point carbon steel. The carbon content is the hardening agent in this steel.
 - a. Low carbon steel - also known as machine steel, machinery steel and mild steel. The carbon percentage runs from 0.05 to 0.30 carbon. The use of low carbon steel varies with the percentage of carbon and where great strength is not needed.
 - b. Medium carbon - contains from 0.30 to 0.60 carbon. It is used where wear and hardness are needed to assure durability.
 - c. High carbon or tool steel - the carbon content of high carbon runs from 0.60 to 1.50 carbon. The content of carbon depends upon the hardness needed for the object being made from it. For example, hacksaw blades are made from 1.40 to 1.50 steel, which means it should, if tempered properly, cut all steel of lower carbon content.
2. Alloy Steel - Those steels that have a mixture of the following metals: Nickel, chromium, manganese, molybdenum, tungsten, and vanadium. By adding these metals to steel, special steel can be made to give more strength, hardness, rust resistance, elasticity, wear resistance, heat resistance, tensile strength and lightness.

- II. NONFERROUS METALS: Those metals which are found in large quantities

UNIT 34

Handout #1, cont.

like iron, but are softer and sometimes found in a pure state. These metals are used in their pure forms or are alloyed with other metals to give strength, wear resistance, and to make alloys of special qualities.

- A. Aluminum - A brilliant, silvery white metal. It is one of the most abundant metals found. Sixty percent of the earth's surface is made up of aluminum ore (bauxite). Aluminum is used in its pure form where softness, ductile, and chemical resistance is needed. Alloy aluminum of over one hundred varieties are used depending upon the alloy element used as set up by the aluminum association designating a standard alloy system.
 - B. Magnesium - A silver-white, light malleable metal much lighter than aluminum. It is abundant in nature, but is always alloyed with other metals because of its high cost and because it burns easily with intense heat and light. Our greatest source is sea water. It is combined with aluminum to add strength and heat resistance.
 - C. Copper - A tough reddish brown metal and the oldest metal known to man. It is the second best conductor of electricity. It is used in its pure form for special purposes.
 1. Brass - A copper-based alloy of copper and zinc. The percentage runs from 60 to 90 percent copper and 10 to 40 percent zinc. If hardness is desired, tin is added.
 2. Bronze - A copper-based alloy of copper and tin. Zinc and other alloy elements are added to make it harder and wear-resistant.
 - D. Zinc - A brittle, bluish-white metal. It is used for coating steel for the protection against rust. This coating with zinc is called galvanizing. Zinc is a widely used alloy element.
 - E. Lead - A heavy, bluish gray, poisonous metal (lead poisoning) Lead is so soft it can be scratched with your fingernail. Water and air have less effect on lead than any other metal. It is used to make pipe, acid resistant containers, paints, and covering for electrical cables and as an alloy element.
 - F. Tin - An expensive soft, shiny, silvery metal. It will not rust and is moisture resistant. It is used extensively for coating other metals and as an alloy agency.
 - G. Nickel - A hard, tough, shiny, silvery metal that will not rust. It is used primarily for plating or coating and as an alloy element for steel to toughen it.
- III. PRECIOUS METALS: Precious metals are nonferrous but because of their scarcity they are classified separately. These metals are found both in the ore form and in the pure state (gold nuggets).
- A. Gold - A soft very precious, heavy, beautiful, bright yellow metal. It is used primarily for jewelry. Because gold is a soft metal, other elements are added to it to harden it.

UNIT 34
Handout #1, cont.

- B. Silver - A soft beautiful, shiny, white metal. It is used primarily for making ornamental work, jewelry, tableware, and coins.

METAL CHARACTERISTICS

Metals have properties (characteristics):

Density	Refers to the weight of the metal. Pounds per square inch (P.S.I.) of foot.
Corrosion Resistance	The ability to resist rusting or other chemical action
Hardness	Resistance to penetration
Hardenability	Allows metal to harden completely through to its center when heat treated.
Toughness	Its ability to withstand shock or heavy impact forces without fracturing
Brittleness	The ease with which metals will fracture without bending or deforming greatly.
Tensile Strength	Resistance to being pulled apart
Ductility	The metal can be drawn out or stretched without breaking.
Malleability	May be hammered, rolled, or bent without cracking or breaking.
Elasticity	May be bent or twisted and still return to its original shape without being deformed
Fusibility	Enables metal to liquefy easily and join with other metals while liquid.
Weldability	May be welded with good fusion and a minimum loss of other properties.
Heat Treatment	The heating or cooling of ferrous metals in the solid state to change their mechanical, microstructural, or corrosion-resisting properties.
Machinability	The ease with which metal can be machined while maintaining maximum tool life, cutting speed, finished appearance or any combination of these factors

TOOLS - HAND AND MACHINE

I. Lay-Out Tools

- A. Measuring devices
 - 1. Bench rule
 - 2. Tape
 - 3. Steel squares
 - 4. Calipers, inside
 - 5. Calipers, outside
 - 6. Dividers
 - 7. Surface Gauge
- B. Marking tools
 - 1. Scriber
 - 2. Scratch awl
 - 3. Pencil
 - 4. Divider
 - 5. Compass
 - 6. Center punch and prick punch
- C. Hammers
 - 1. Ball peen
 - 2. Tinners
 - 3. Riveting
 - 4. Forging
- D. Cutting tools
 - 1. Cold chisel
 - 2. Tin snips
 - a. Straight
 - b. Scroll
 - c. Aviation
 - 3. Foot operated squaring shear
 - 4. Hacksaw
 - 5. Files
 - a. Types
 - 1. Single-cut
 - 2. Double-cut
 - 3. Rasp-cut
 - b. Coarseness
 - 1. Rough
 - 2. Coarse
 - 3. Bastard
 - 4. Second cut
 - 5. Smooth
 - 6. Dead smooth
- E. Miscellaneous
 - 1. Punches for rivets
 - 2. Soldering irons and coppers
 - 3. Taps and dies
 - 4. Seamer
 - 5. Hand folder (sheet metal)
 - 6. Hand mill - egg beater and electric
 - 7. Twist drill
 - 8. Anvil

UNIT 34
Handout #3, cont.

- 9. Sheet metal stakes
- 10. Furnace
- 11. Vices

II. Machine Tools

- A. Bench grinder
- B. Power Hacksaw
- C. Combination machine
- D. Bar Folder
- E. Pan break
- F. Drill press
- G. Acetylene torch
- H. Electric welder
- I. Wire wheel
- J. Buffer
- K. Belt and body sander

GENERAL SAFETY FOR METALWORKING

Safe work practices and safe work habits result when you use machines, tools, and materials correctly. You also must follow commonly recognized safety rules and safety practices in order to avoid possible accidents or personal injury. The following safety rules, safety precautions, and safety procedures should be followed:

1. Always notify the instructor immediately when you are injured in the shop or laboratory, no matter how slight the injury.
2. Always have proper first aid applied to minor injuries. Always consult a physician for proper attention to severe cuts, bruises, burns, or other injuries.
3. Safety goggles or a face shield of an approved type should be worn at all times in shop or laboratory.
4. Oil or grease on the floor is hazardous and can cause slipping; hence it should always be cleaned up immediately.
5. Place oil rags or other inflammable wiping materials in the proper containers.
6. Keep aisles and pathways clear of excess stock, remnants or waste. Store long metal bars in the proper storage area.
7. Return all tools or machine accessories to the proper storage areas after use.
8. Operate machines or equipment only when authorized to do so by your instructor.
9. Avoid needless shouting, whistling, boisterousness, or play when in the shop or laboratory. Give undivided attention to your work.
10. Never touch metal which you suspect is hot. If in doubt, touch the metal with the moistened tip of your finger to determine whether it is hot.
11. When you approach someone who is operating a machine, wait until he has finished that particular operation or process before you attract his attention.
12. Avoid touching moving parts of machinery.
13. Do not lean on a machine that someone else is operating.
14. Do not operate a machine until the cutting tools and the material are mounted securely.

UNIT 34

Handout #4, cont.

15. Be sure that all of the safety devices, with which a machine is equipped, are in the proper location and order before using the machine.
16. If more than one person is assigned to work on a certain machine, only one person should operate the controls or switches.
17. Never leave a machine while it is running.
18. A machine should always be stopped before oiling, cleaning, or making adjustments on it.
19. Always use a brush or a stick of wood to remove metal chips from a machine. Otherwise you may be cut by sharp chips.
20. Do not try to stop a machine such as a drill press spindle or a lathe spindle with your hands.
21. Do not touch moving belts or pulleys.
22. Always be certain that the machine has stopped before changing a V-belt.
23. Before starting a machine be sure that it is clear of tools, oil, or waste.
24. Request help from a fellow worker when it is necessary to lift a heavy machine accessory or other heavy object. Always lift with your legs, not your back.
25. Do not work in restricted areas that are marked off as safety zones.
26. Be sure that everyone around you is wearing approved safety goggles or a safety shield if you are permitted (by your instructor) to blow metal chips from a machine with compressed air.
27. Know the location of the nearest fire alarm in the building in case of fire. Also learn the location of the nearest fire extinguisher and ask your instructor to explain how it is operated.
28. Always place inflammable materials, such as paint thinners, lacquers, and solvents in a metal cabinet away from open flames.

SAFETY WITH HAND TOOLS

The following safety rules or safe work practices should be followed in using hand tools:

1. Use the right tool for the job to be performed.
2. See that tools and your hands are clean and free of grease or oil before use.
3. Cutting tools should be sharp when using them. Dull tools cause accidents because of the greater forces required to use them.
4. Sharp edge tools should be carried with their points and cutting edges pointing downward.
5. Heads of cold chisels and punches should not be allowed to mushroom or crack; they should be properly dressed or repaired.
6. When using a chisel, always chip in a direction which will prevent flying chips from striking others.
7. Use the correct type of a wrench for the job and use it properly. You can injure your knuckles or hand if the wrench slips.
8. When using a file be sure that it is equipped with a snug-fitting handle. Otherwise, the sharp tang on the file could injure your hand.
9. When you hand tools to others, give them the handle first.
10. Always report damaged tools to the instructor. Damaged tools can cause injuries.
11. Tools should always be wiped free of grease or dirt after use, and they should be returned to the proper storage location.

TEACHER REFERENCES

Additional information may be obtained from the following:

The Forging Industry Association
55 Public Square
Cleveland, Ohio 44113

International Brotherhood of Boilermakers, Blacksmiths, Forgers, and Helpers
Eighth at State Avenue
Kansas City, Kansas 66101

The American Federation of Technical Engineers (AFL - CIO)
900 F Street N.W.
Washington, D.C. 2004

The American Welding Society
345 East 47th Street
New York, New York 10017

Sheet Metal and Air Conditioning Contractors National Association, Inc.
107 Center Streets
Elgin, Illinois 60120

American Society for Engineering Education
Technical Institute Council,
Dupont Circle Building
1346 Connecticut Avenue N.W.
Washington, D.C. 20036

National Council of Technical Schools
1507 M. Street, N.W.
Washington, D.C. 20005

Laborers' International Union of North America
905 Sixteenth Street, N.W.
Washington, D.C. 20006

POST TEST - METALS

1. Metals may be classified in three groups. Name them.

1. _____ 2. _____ 3. _____

2. Name three kinds of metals that are added to steel to give it strength, toughness, and flexibility.

1. _____ 2. _____ 3. _____

3. Name two metals that are used to make jewelry.

1. _____ 2. _____

4. Name two metals that will not rust.

1. _____ 2. _____

5. What metal is poison? _____

6. What is an alloy? _____

Give three examples.

1. _____ 2. _____ 3. _____

7. What is layout? _____

8. Name three tools used in the following:

A. Marking Tools 1. _____ 2. _____ 3. _____

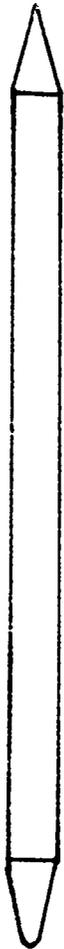
B. Hammers 1. _____ 2. _____ 3. _____

C. Cutting Tools 1. _____ 2. _____ 3. _____

D. Miscellaneous 1. _____ 2. _____ 3. _____

E. Machines 1. _____ 2. _____ 3. _____

Tool - One-fourth inch dowel rod
Sharpen in pencil sharpener



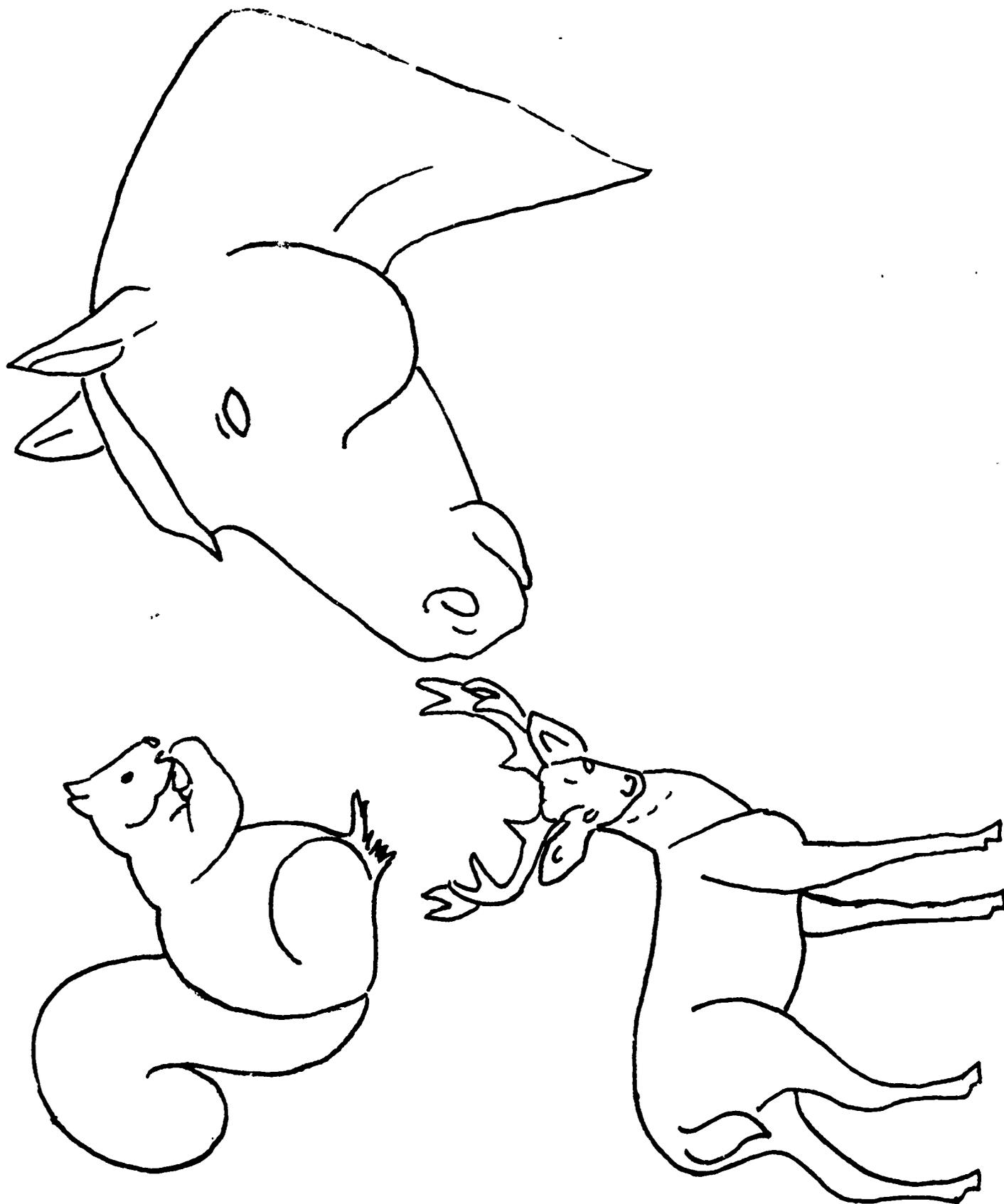
Cut at an angle and round point



PROCEDURE

1. Tape drawing to metal at top and place on a pile of newspapers.
2. Using a dull pencil, go over drawing. Press hard. Check to see if all lines are clear before removing tape.
3. Go over all lines with pencil again; turn over and rub with tool. Check all areas that need to stand out and rub these until you have them in proportion.
4. Place copper on a clean hard surface and rub the copper away from the Razorback. Be sure to rub all the way to the edges.
5. Place Razorback on new paper and put hairline on by using a sharp pencil.
6. Rub with steel wool until shiny. Do not touch this area. Tarnish with liver of sulphur and rub again with steel wool until desired color is obtained. Let dry and apply two coats of lacquer.

UNIT 34
Project #2, Copperfoil



SHEET METAL PROJECT

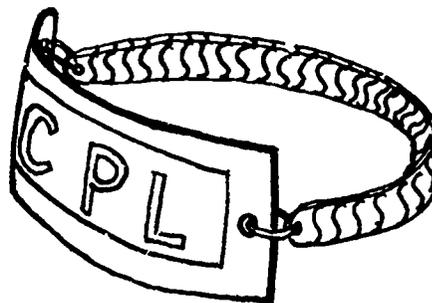
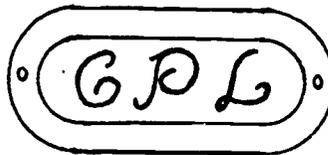
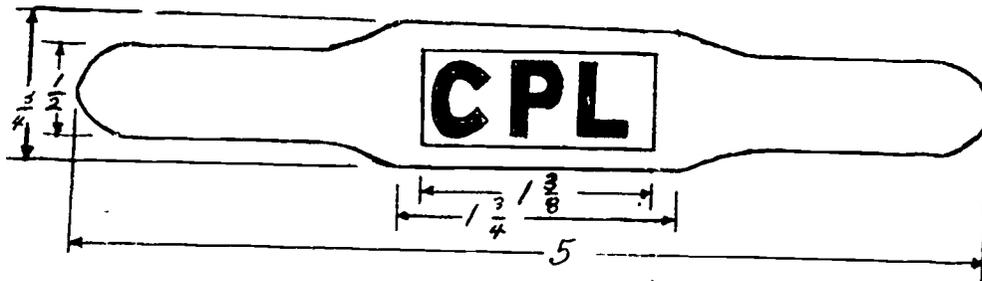
This project is to be a house number sign made of one piece of 24 or 26 gauge, 7 X 9 inch sheet metal. If you wish to have a large base for number, a larger piece of metal may be used. Place the drawing on sheet metal with carbon paper and trace lines to transfer lines for cutting and painting.

The marker may be mounted on a house or on a metal stake driven in the ground in a convenient place on the lawn.

UNIT 34
Project #3 - Sheet Metal



UNIT 34
Project #4



MATERIAL: Non-ferrous metal such as brass, copper, or aluminum

This project may be used in various ways such as an I.D. bracelet or an identification tag.

Two completely different methods of making this project may be used--etching or embossing. The embossing may be done with a hammer or an embossing tool.

The I.D. bracelet may be made in one piece as shown in the top illustration, formed to fit the arm, or a flexible band may be purchased and used as in the lower illustration.

The teacher will give instructions as to the procedure to be used.

UNIT 35: ELECTRICAL AND ELECTRONIC CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

Upon completion of this unit the student:

1. Will be able to identify the occupational opportunities in the electrical field.
2. Will have knowledge of several terms and processes common to electricity and its application.
3. Will be able to complete simple wiring problem using proper tools and procedure.
4. Will be able to match 70 percent of the electrical symbols with the proper heading.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Discuss and make assignments concerning electrical and electronic occupations.. Discuss terms and processes of electricity; distribute information sheets.. Ask students to identify symbols on schematic diagram.. Make assignment of wiring problem and distribute tools and material.. Assign a few students to interview an electrician or electronics technician. Administer symbols test.	<p>Form A</p> <p>Handout #1a, #1b, and #2</p> <p>Handout #3a and 3b</p> <p>Project #1</p> <p>Form C</p>
<p><u>ENRICHMENT</u></p> <ul style="list-style-type: none">. Assign an indepth study in one area of electrical occupations.. Suggested activity--build small electric motor.. Allow students to make nite lite.	<p>Project #2</p>

OCCUPATIONS IN ELECTRICITY AND ELECTRONICS

The general breakdown of occupations could be installation and repair, electrical and electronic technician, and electrical and electronic engineer. These could be further classified as: construction, automotive, lineman, motors and generators, telephones, power transmission, television, illumination and electronics.

GENERAL ELECTRICIAN: installs wires and fixtures in a new factory or home. He lay -out, assembles, installs and tests electrical fixtures, apparatus and air conditioning, refrigeration, and other electrical systems; reads blueprints and plans; places wires, cables, and conduits in the proper places.

MAINTENANCE ELECTRICIAN: is responsible for the efficient operation of motors, generators, transformers, and other electrical equipment used in manufacturing and commercial establishments; "trouble-shoots" and repairs defective equipment, and prevents electrical breakdowns.

ELECTRICAL/ELECTRONIC TECHNICIAN: is qualified to construct, maintain, and repair electronic equipment. Electronic equipment includes devices which make use of vacuum tubes or transistors. These parts are found in radio, television, radar, missile control, and electronic computers. The technicians's job consists of testing, inspecting, and trouble-shooting. Some skills that the technician may be involved in are: teaching, management, administration, research, design, development, application, testing service, production, election, sales, construction, consulting, writing and editing.

ELECTRICAL ENGINEER: is concerned with the generation of electricity and its transportation and use. He designs, develops and supervises the manufacture of electrical and electronic equipment. The major areas of work include electronics, electrical machinery and equipment manufacturing, telephone and telegraph, power, illumination, and transportation.

MAGNETISM

MAGNETISM: natural magnets - artificial magnets - magnetic fields

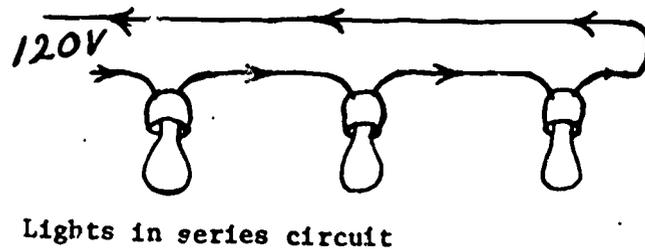
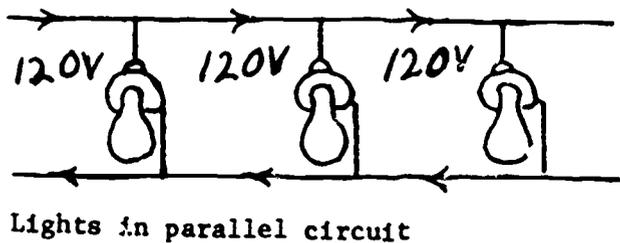
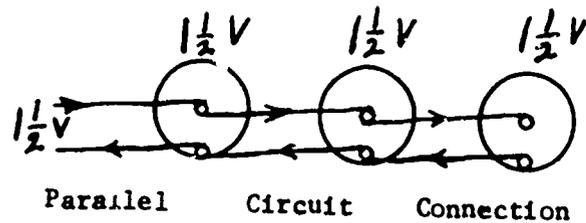
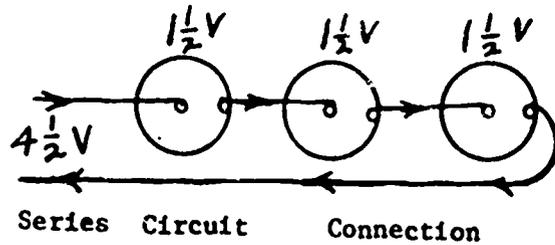
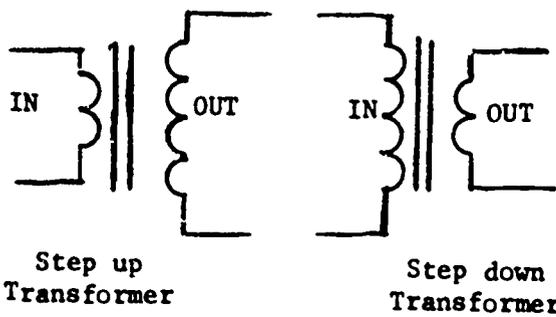
Natural Magnets - Lodestones or Permanent Magnets or Magnetite: Many things about electricity and magnetism are the same.

Artificial Magnets: These magnets are man made of special alloys of steel and are charged by using electrical current and coils of wire.

Magnetic Fields: Magnets have polarity and fields of force--the direction of flow of electrons. The force field flows from north to south through the center of the earth. Unlike poles attract--like poles repel.

Electromagnets: If a wire is passed through a magnetic field it will distribute the electrons in the wire causing them to move and produce an electric current. When the current of electricity is passed through a wire, it will set up a magnetic field around the wire.

Electrical Current and Its Measurement: When electrons in a wire or other electrical conductor are disturbed, an electric current is said to flow along the conductor due to the movement of electrons. Electric current is electrons in motion. The force which causes an electric current to flow is generally a battery or generator. Electro-motive force is called voltage. The amount of current flowing is called amperage. The opposition to an electric current is called resistance. The VMT of measure is OHM. Ohm's Law $E=IR$ $I=\frac{E}{R}$ $R=\frac{E}{I}$ E = voltage I = amperage R = resistance



ELECTROMAGNETS ARE USED IN: electric buzzers, telegraph and electric motors.

CURRENT ELECTRICITY IS USED IN: transformers, and circuits.

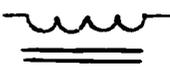
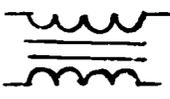
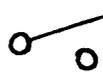
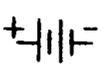
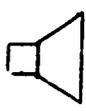
A REVIEW OF FACTS ABOUT THE BEHAVIOR OF ELECTRICITY AND ITS RELATION TO
ELECTRONICS, AUDIO, AND ELECTROMAGNETIC WAVES

1. Atoms are the basic unit of all matter and are made up of tiny particles called neutrons, protons, and electrons.
2. The electrons, protons, and neutrons are held together by electric energy.
3. Electrons are charged negatively (-), protons are charged positively (+), and neutrons are not charged at all.
4. Atoms which have a shortage of electrons carry a positive (+) charge. Atoms having a surplus of electrons carry a negative charge.
5. Particles having unlike charges attract each other, and particles having like charges repel each other.
6. Current electricity may be defined as the movement of electrons along a conductor.
7. In direct currents, the electrons flow in only one direction along the conductor.
8. In alternating currents, the electrons reverse the direction in which they flow at regular intervals.
9. When a wire is passed through a magnetic field, or a magnetic field cuts across a wire, electrons are set in motion, causing a current of electricity to flow along the wire.
10. When a current of electricity passes along a wire, a magnetic field is set up around the wire.
11. An alternating current of electricity can be transferred from one coil of wire to another by electrical induction.

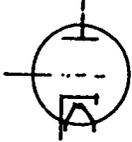
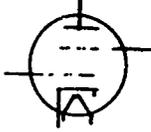
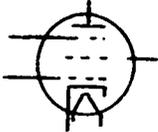
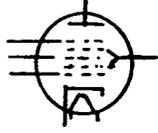
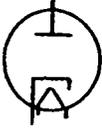
AUDIO AND ELECTROMAGNETIC WAVES

Electricity and magnetism may be used to produce electromagnetic waves which are capable of moving great distances through space at the same speed as light. There are many lengths of electromagnetic waves. The difference in the various kinds is due to their frequency, i.e. the number of waves generated per second. Unlike audio waves (waves which may be interpreted by the human ear), electromagnetic waves do not require an atmosphere in which to move. Audio waves have a very low frequency compared to electromagnetic waves.

STANDARD SYMBOLS AND ABBREVIATIONS

	GROUND		POTENTIOMETER
	WIRES CROSSING NOT CONNECTED		BASIC COIL - AIR CORE RADIO FREQUENCY CHOKE
	WIRES CROSSING CONNECTED		COIL - IRON CORE CHOKE
	RELAY		TRANSFORMER IRON CORE
	ANTENNA		TRANSFORMER AIR CORE
	METALLIC RECTIFIER CRYSTAL DIODE		FIXED CAPACITOR
	METER (INSERT LETTER) A-AMMETER V-VOLTMETER MA-MILLIAMMETER		VARIABLE CAPACITOR
	SWITCH SPST		SUN BATTERY
	SWITCH SPDT		BATTERY
	CHASSIS CONNECTION		CRYSTAL
	TRANSISTOR NPN		SPEAKER
	RESISTOR		TRANSISTOR PNP

UNIT 35
Handout #3b

	TRIODE		HEADPHONES
	TETRODE		LAMP
	PENTODE		PILOT LIGHT
	PENTAGRIDS CONVERTER		JACK
	DIODE		TERMINAL
	VR TUBE		FUSE
	MICROPHONE		AC PLUG - MALE
	MAGNETIC PICK-UP		AC PLUG - FEMALE

I current
E voltage
R resistance
X reactance
Z impedance
L inductance
C capacitor
f frequency

λ wave length
 Δ a change in
 Ω ohms
G conductance
 r_p plate resistance
A voltage gain
V vacuum tube or volts in
transistor circuits
P watts

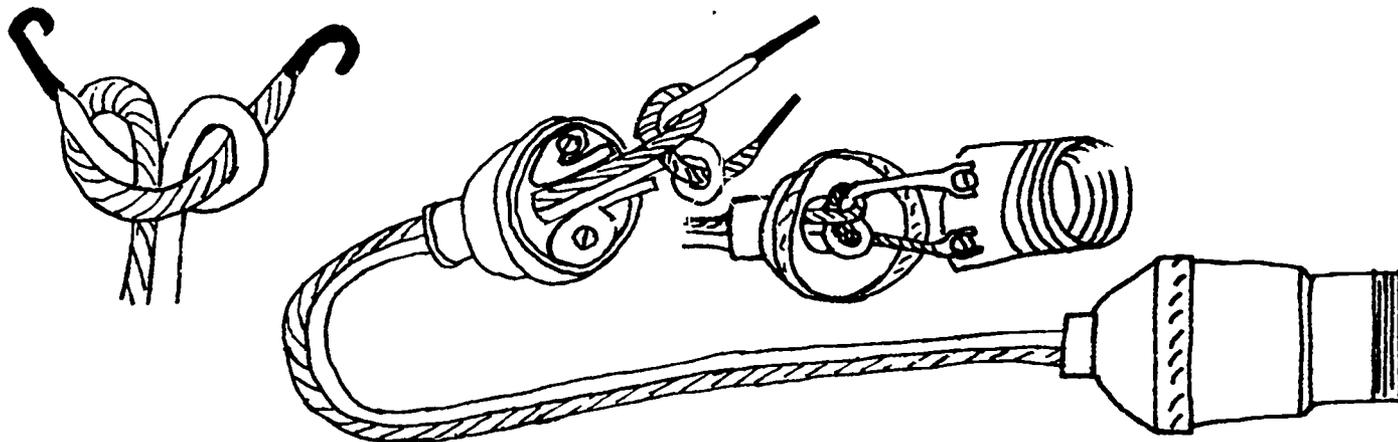
WIRING AN ELECTRICAL SOCKET USING AN UNDERWRITER'S KNOT

The underwriter's knot is used to prevent the connections on the inside of plugs, sockets, and other electrical attachments from being damaged when the cord is accidentally pulled or jerked.

1. Form a loop by placing one end of the wire down and in front of the cord to the opposite side.
2. Form a loop with the second end by laying the wire down and behind the cord to the opposite side.
3. Place the ends of the wires through the loops as shown.

CONNECTING A WIRE TO A SCREW CONNECTION

1. Strip the insulation from the end of the wire.
2. Form the bare end of the wire into a loop.
3. Loosen the screw.
4. Place the loop end of the wire around the screw in the same direction in which the screw tightens. This prevents the end of the wire from being forced from under the screw as the screw is tightened.
5. Hold the end of the wire in place while tightening the screw securely.



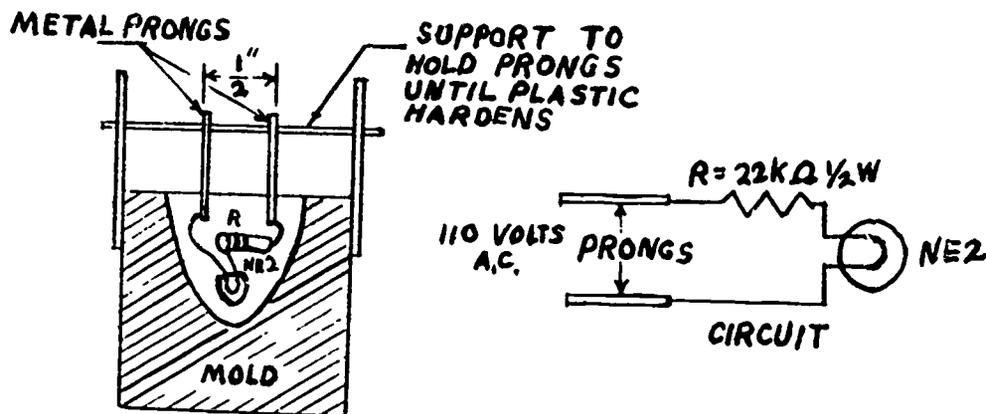
WIRING A PLUG TO A CORD

1. Strip the insulation from the ends of the wire.
2. Place the end of the cord through the plug.
3. Tie an underwriter's knot in the end of the cord.
4. Secure the wires under the screw connections.

WIRING A LIGHT SOCKET TO A CORD

1. Disassemble the socket.
2. Place the base of the socket over the end of the cord.
3. Strip the insulation from the ends of the wire.
4. Tie an underwriter's knot in the end of the cord.
5. Bend the bare ends of the wire into loops.
6. Secure the loop ends of the wire under the screw connections.
7. Assemble the socket.

NITE-LITE



BILL OF MATERIALS

- 2 Brass Prongs from male electrical plug
- 1 R22K Ω 1/2 W Resistor
- 1 Ne2 neon light bulb
- 3 in. Copper wire, 16 or 18 gauge
- 1 Mold of desired size and shape (see above drawing)
- Small amount of liquid plastic

PROCEDURE

1. Make or otherwise secure the mold. Mold must have supports to hold assembled parts suspended in plastic until plastic hardens.
2. Remove brass prongs from an old electrical plug.
3. Solder light bulb, resistor, and brass prongs as shown in drawing.
4. Suspend assembled parts in mold making sure the brass prongs are 1/2 inch apart. (For convenience use prongs with holes in the outlet ends.)
5. When plastic hardens remove from mold and polish.

SYMBOL TEST

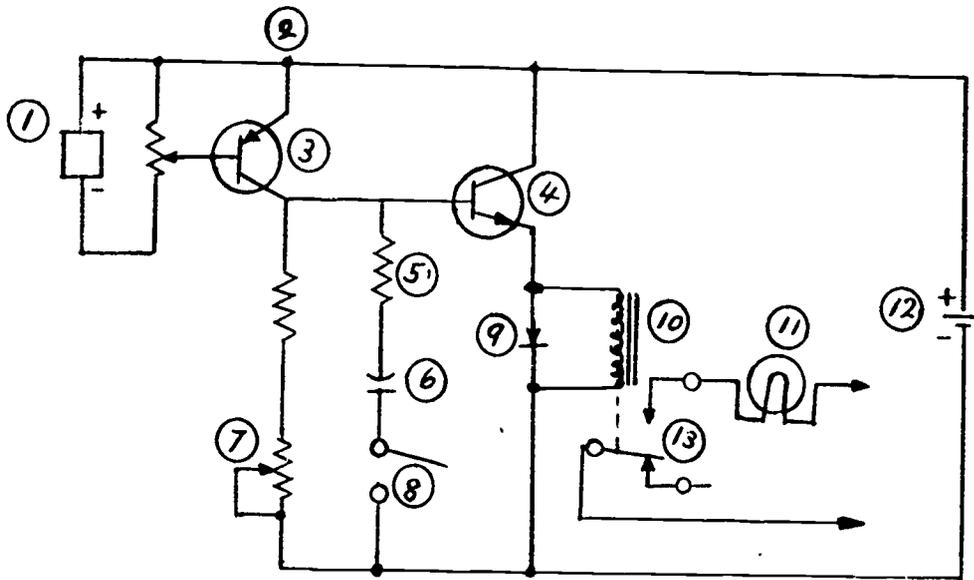
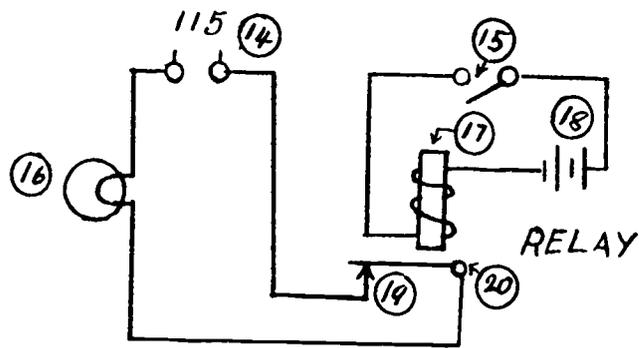


Diagram for garage light control



- | | | |
|----------|-----------|-----------|
| 1. _____ | 8. _____ | 15. _____ |
| 2. _____ | 9. _____ | 16. _____ |
| 3. _____ | 10. _____ | 17. _____ |
| 4. _____ | 11. _____ | 18. _____ |
| 5. _____ | 12. _____ | 19. _____ |
| 6. _____ | 13. _____ | 20. _____ |
| 7. _____ | 14. _____ | |

TEST FOR UNIT 35

1. Name the three general classification of electrical careers.
2. List several ways in which electricity is used around your home.
3. What are the ends of magnets called?
4. What is a lodestone?
5. How does magnetism cause the movement of electrons along a conductor?
6. What is the basic unit of all matter?
7. Explain the difference between direct current and alternating current.
8. What fact in regard to audio waves and electromagnetic waves make radio communication possible?

KEY

1. general electrician, electronic technician, electrical engineer
2. lighting, heating, cooling, cooking
3. poles - north and south poles
4. magnetite - natural substance with magnetic poles
5. When the magnetic field is disturbed, it causes movement of the electrons.
6. atom
7. direct current is steady current - alternating current is pulsating current
8. Electromagnetic waves do not require an atmosphere in which to move.

UNIT 36: GRAPHIC ARTS
(Suggested Time: Three Days)

Behavioral Objectives

1. Upon completion of this unit the student will be able to identify two of the three printing processes and list three occupations associated with each of the processes as presented on Handout #1.
2. The student will be able to perform a simple printing task associated with letterpress process by using a block of linoleum and inscribing a simple graphic representation, using printers ink and actually printing the representation.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Discuss objectives. Hand out Study Sheet on printing occupations and discuss with class.. Review the skills involved in the three printing processes.. Hand out Instruction Sheet and discuss procedures in completing linoleum block printing.. Encourage students to select one Graphic Arts career and investigate in depth.	<p>Handout #1</p> <p>Instruction and Project Sheet #2 and #3</p>

RESOURCE INFORMATION

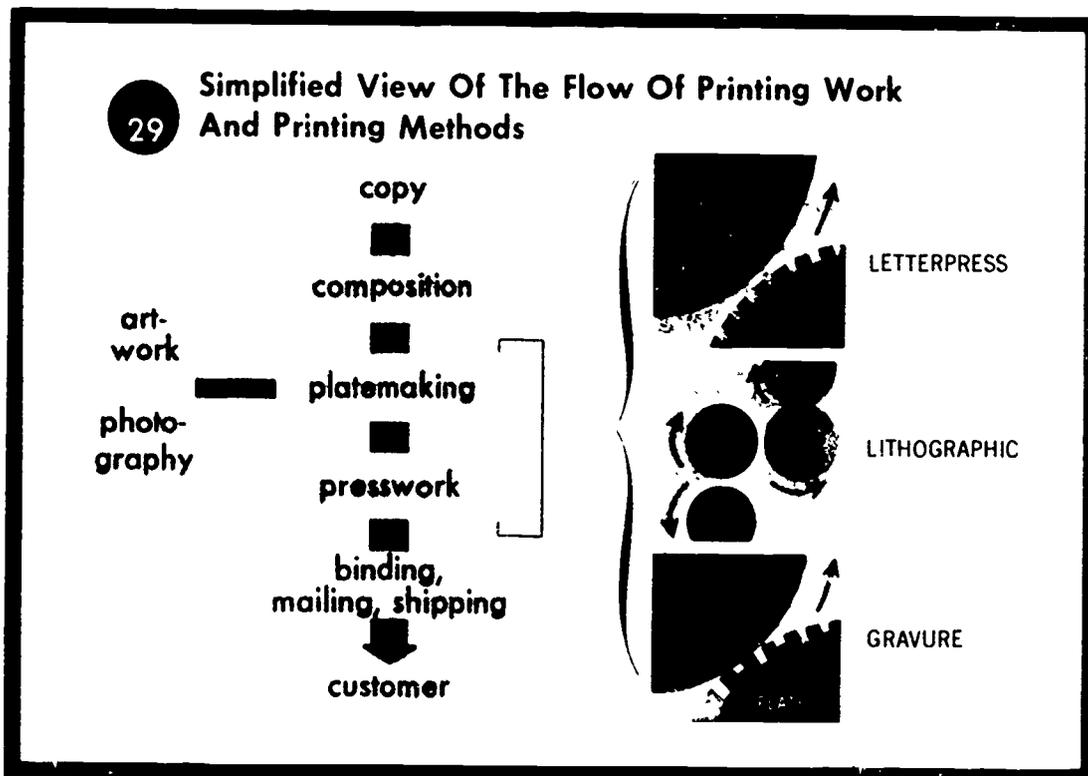
- . American Newspaper Publishers Association, 750 Third Avenue, New York, New York 10017
- . Education Council of the Graphic Arts Industries, 4615 Foches Avenue, Pittsburgh, Pennsylvania 15213
- . Graphic Arts Technical Foundation, 4615 Foches Avenue, Pittsburgh, Pennsylvania 15213
- . Printing Industries of America, Inc., 20 Cherry Chase Circle, N. W., Washington, D.C., 20015
- . International Typographical Union, P. O. Box 157, Colorado Springs, Colorado 80901
- . American Photoengravers Association, 166 West Van Buren Street, Chicago, Illinois 60604
- . International Stereotyper's and Electrotyper's Union of North America, Pressman's Home, Tennessee 37850
- . International Brotherhood of Bookbinders, 1612 Street, N. W., Washington, D.C., 20016

I. FUNDAMENTAL

Printing is a process of transferring ink impressions of words, numerals, symbols, and photographs or other illustrations to paper, metal or other materials.

II. METHODS

The three most commonly used methods of printing are letterpress, lithography and gravure.



UNIT 36
Handout #1, cont.

There are several basic steps involved in the production of printed matter. They include:

LAYOUT: Planning the composition and content of each page.

TYPESETTING AND COMPOSITION: Producing and assembling the text type, headings, illustrations and other materials into final page form.

PLATEMAKING: Preparing printing plates from the original composition for use on the printing presses.

PRINTING: Transferring an image to a printing surface.

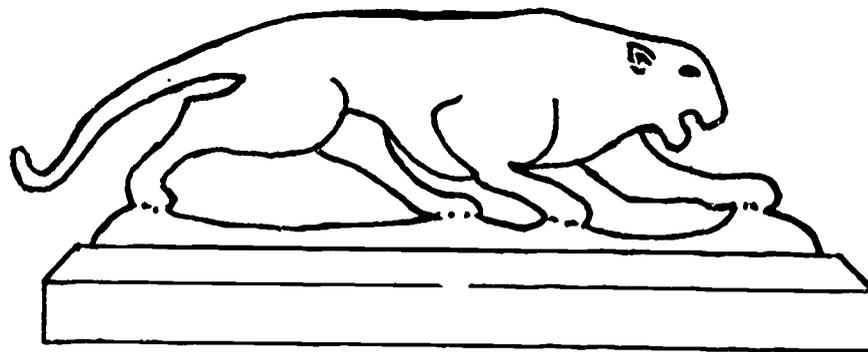
FINISHING: Binding and mailing operations.

1. LETTERPRESS: A process where the printing surface is raised above the printing plate. Ink is applied to the printing surface, and the paper is compressed against the printing surface to produce the impression.
 - A. Linotype machine - copy is set in type form
 - B. Composition - where type is made up into forms to be printed
 - C. Pressmen - takes make-up form and prints image on paper
2. LITHOGRAPHY: A process based upon the fact that water and ink do not mix. The printing area of the plate is covered with ink. The plate is then covered with water. The water will not adhere to the ink-covered area. When ink is rolled over the plate, only the covered areas will take the ink.
 - A. Cold type machines - copy is set on a machine which makes a reproduction that is to be pasted up into camera-ready copy
 - B. Camera - Ready copy is shot with camera, producing a negative and after developing is ready for stripping
 - C. Stripping - negative is taped on a masking sheet ready for printing
 - D. Platemaking - mask sheet is placed on a metal plate and clear areas on the negative are burnt on the plate
 - E. Press - plate is placed on the press and areas which were not burnt will not pick up the ink. Areas which are burnt pick up the ink and are transferred on the blanket

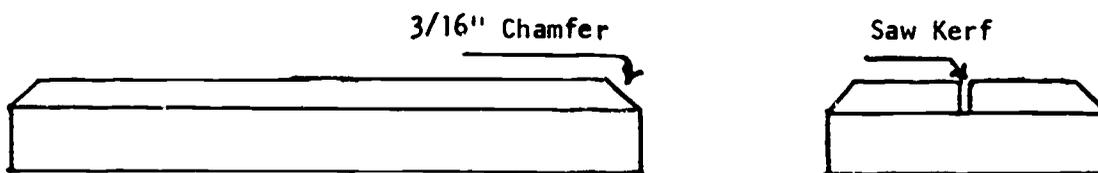
UNIT 36
Handout #1, cont.

3. GRAVURE: A process where the printing area, a cylindrical or round drum, is depressed. Ink is applied to the entire plate, and the surface is wiped leaving ink only in the depression. In printing, suction is created which lifts the ink out of the plate depression on to the paper.
- A. Same as #2A
 - B. Same as #2B
 - C. Positive - made from negative - see #2D
 - D. Etching - image is cut in the plate
 - E. Press - same as #2D

UNIT 36
Instruction and Project Sheet #1



PAPERWEIGHT



Definition

Drawing, engraving, etching, painting, and other arts involving the use of lines and strokes to express or convey ideas in terms of forms. The use of graphic symbols as in writing.

Project #1

Make a paperweight with school mascot silhouette as background or plaque with school mascot silhouette and school name stenciled on wood or metal with wood base.

Let students make their own layout and design arrangement from patterns furnished by teacher of different letter styles.

The silhouette on this paperweight can be changed to represent any school mascot or any symbol the student may wish to use.

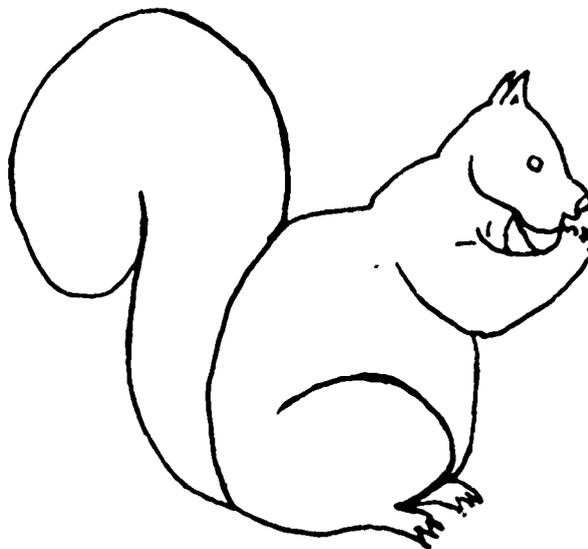
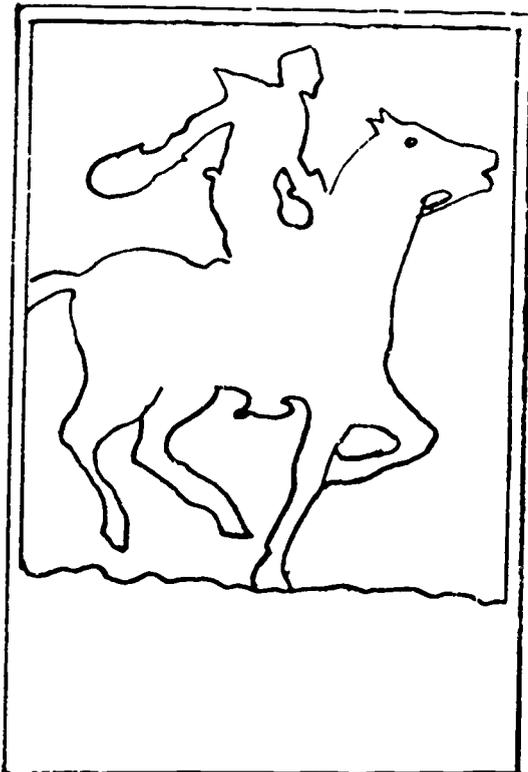
Materials: 1 - 4 1/2" X 2 1/2" X 1/2" Wood (any kind of wood available)
1 - piece sheet metal, 4" X 2", 20-24 gauge
Small amount of paint (desired color)

Procedure: Cut base to desired size, plane 3/16" chamfer on all corners of the face of the base. With backsaw, cut groove in center from end to end 3/16" deep. Lay out silhouette on metal, cut and shape according to your pattern. Allow enough metal at the base of the silhouette to make a 1/8" hem. This should make the silhouette fit tightly into groove. Finish both base and silhouette as desired.

LINOLEUM BLOCK PRINTING

Procedure

1. Trace design or draw your own.
2. Place linoleum on a flat surface, tape design to top of linoleum, place carbon paper under the design and go over design with a hard pencil.
3. Remove carbon but do not remove tape or design; fold over and go over the carbon lines with a sharp pencil leaving a light impression in the linoleum. Retrace all lines that may have smudged.
4. Mark all areas that are to be recessed.
5. Using a sharp carving knife, cut lines that are to be raised at a slight angle about halfway through the linoleum. Cut on both sides so that the cut will form a "V."
6. Rough out all areas that are to be recessed.
7. Ink and print.
8. Suggested designs: peace signs, side profiles of animals, letters, etc.



UNIT TEST

1. What is printing?
2. Name two materials that are used to make the printing surface.
3. What method of printing uses suction method to transfer the ink?
4. Name three commonly used methods of printing.
5. List five occupations that are associated with the printing industries.

Key:

1. The process of transferring ink impression of words, numerals, symbols, photographs or other illustrations to paper, metals or other materials.
2. Metal, wood, linoleum
3. Gravure
4. Letter press, lithography, gravure
5. Linotype operator, compositor, pressman, cold type machine operator, camera man, stripper, platemaker, etcher

UNIT 37: EXPLORING AGRICULTURAL CAREERS
(Suggested Time: Three Days)

Behavioral Objectives

1. Students will be encouraged to acknowledge the agricultural background of our state by comparing employment levels since 1950 and listing two of the reasons why these changes have occurred.
2. Students will select at least one agricultural occupation for further study using Form A as a guideline.
3. Students can match five of nine terms with descriptions of the occupations.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<u>Behavioral Objective #1</u>	
<ul style="list-style-type: none">• Introduce unit with transparencies and class discussion: "Why have these changes occurred?" "How many of you have lived on a farm?" "Did your parents or grandparents live on a farm?"	Transparencies #1 and #2
<ul style="list-style-type: none">• Pretest	Pretest (See Evaluation)
Life in the open, dealing with living things - either plant or animal - includes agricultural, fishery, and forestry occupations.	
<ul style="list-style-type: none">• Grow plants in classroom with and without soil. Hydroponics is a chemical way to grow plants without soil.	World Book, pages 418-419, Vol. H, Hydroponics
<ul style="list-style-type: none">• Ask nurseryman to show plans for landscaping and tell about his occupation.	World Book, pages 188, Vol. H, Herb Garden
<ul style="list-style-type: none">• Ask florist to demonstrate flower arranging or corsage making and tell about occupation.	
<ul style="list-style-type: none">• Students may work in groups to make seasonal arrangements for cafeteria or classrooms.	
<ul style="list-style-type: none">• Invite speaker and/or film from local, state, or federal service and tell about occupation.	Form B, Ask Game & Fish Commission, U.S. Forestry Service

INSTRUCTIONAL

RESOURCES

Behavioral Objective #2

- . Write a report on one occupation.

Form A

Behavioral Objective #3

- . Use slides or filmstrips as available from co-op, farm equipment, chemical or seed companies, to show machines, land and crops. Talk about investment in land and machines, costs of yearly operation, education and experience of value to farmer.
- . Add state flower to map of Arkansas
- . Place coded markers to indicate agricultural occupations on state map.

Seed companies, chemical companies, farm machinery, etc.

Handout #1

ENRICHMENT

- . Plan field trip to some type of farming operation.
- . Have student report or show pictures of occupations in agriculture.

Contact owners and managers of farms

EVALUATION: PRETEST AND POST TEST

Fill in the blanks:

The state flower of Arkansas _____.

The _____ of a flower attracts insects.

Flower clocks tell the approximate time of day by _____ and _____ at certain times.

The smallest flowering plant is _____, with blossoms 1/50" long and 1/63" wide.

The largest flower is _____, grows in Indonesia and is 3" across, weighs 15 pounds, and may have petals 1 1/2 feet long and 1 inch wide.

MATCH:

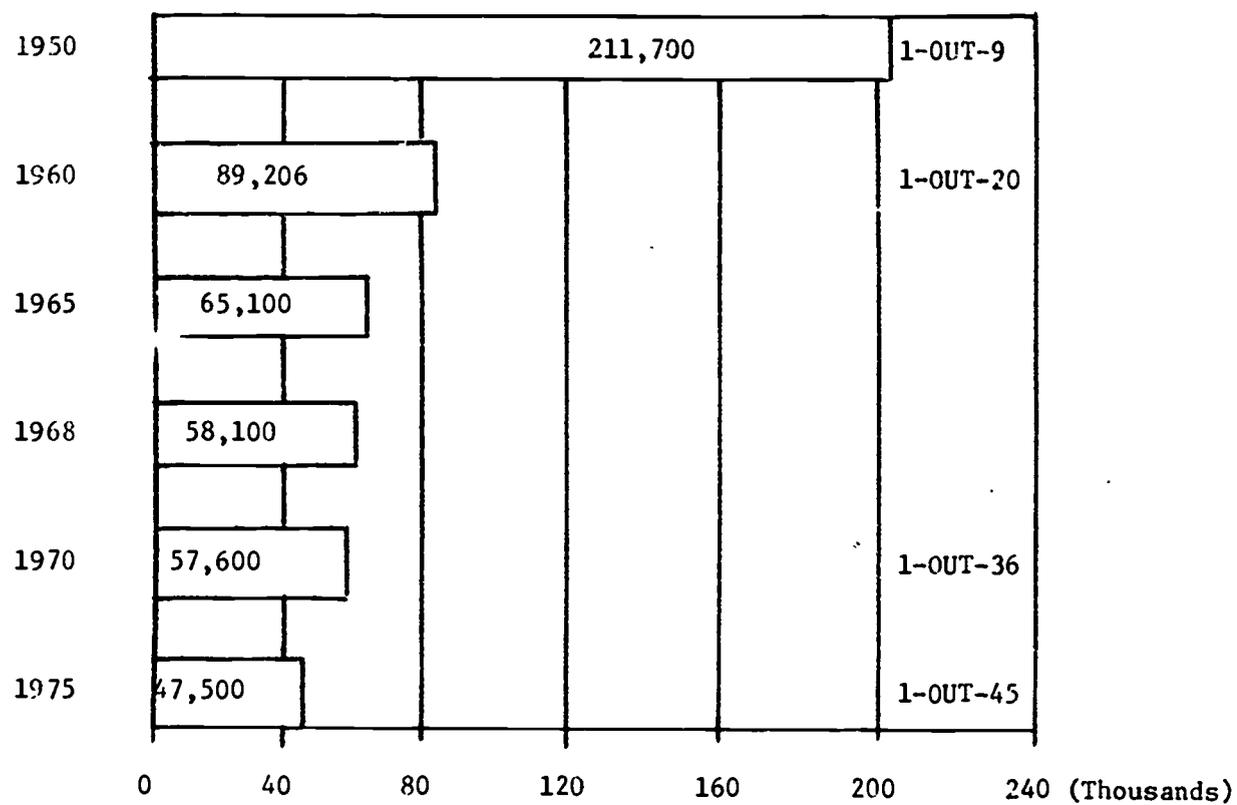
- | | |
|-----------------------|------------------------------------------------------------------------|
| 1. _____ Silviculture | a. Science and practice of fruit growing |
| 2. _____ Hydroponics | b. Growing flowers and ornamental plants |
| 3. _____ Pomology | c. Science or art of growing fruits, vegetables, and flowers |
| 4. _____ Olericulture | d. Beekeeper |
| 5. _____ Floriculture | e. Development and care of forest |
| 6. _____ Agriculture | f. Production, storage, processing, and marketing of vegetables |
| 7. _____ Horticulture | g. Science of developing, caring for, or cultivating forests |
| 8. _____ Forestry | h. Chemical way to grow plants without soil |
| 9. _____ Apiarist | i. Science of cultivating soil, producing crops, and raising livestock |

KEY

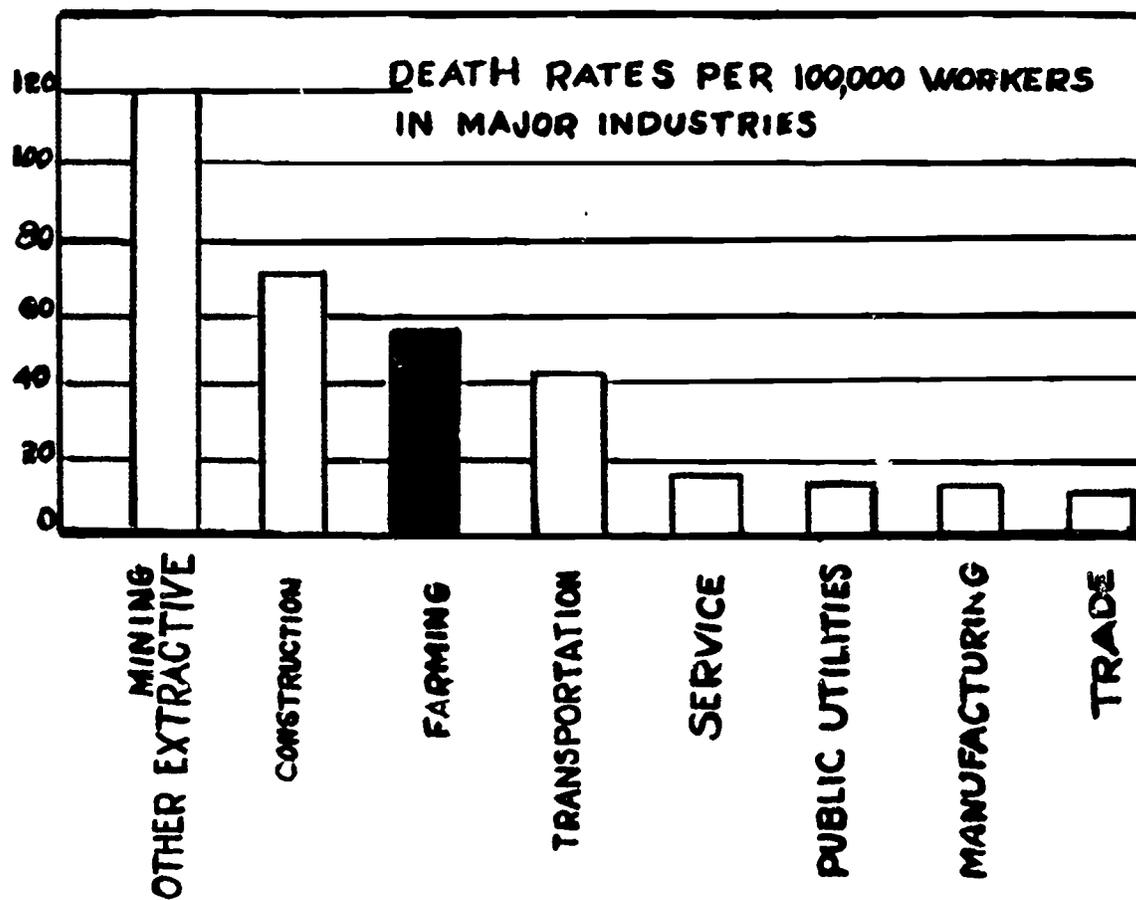
Arkansas state flower is the apple blossom.
The odor of a flower attracts insects.
Flower clocks open and close at certain times.
The smallest flowering plant is the duckweed.
The largest flower is the rafflesia arnoldi.

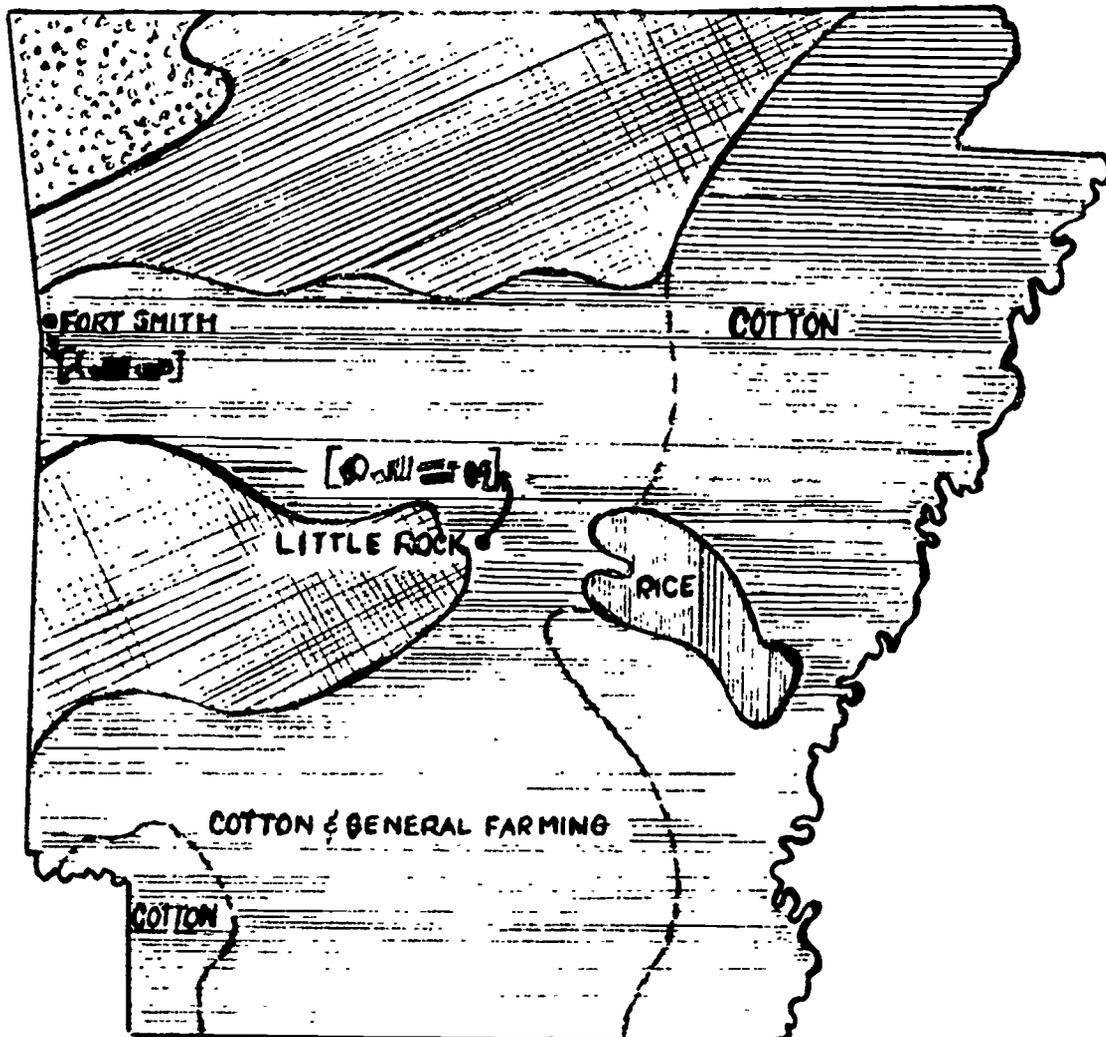
Match: 1 - e
2 - h
3 - a
4 - f
5 - b
6 - i
7 - c
8 - g
9 - d

DECLINING AGRICULTURAL EMPLOYMENT IN ARKANSAS



FARMING VS. OTHER INDUSTRIES



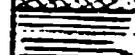


ECONOMIC ACTIVITY

MANUFACTURING

-  FOOD PROCESSING
-  LUMBER & FOREST PRODUCTS
-  FURNITURE
-  METAL PROCESSING
-  CLOTHING
-  STONE, CLAY & GLASS PROD.

AGRICULTURE

-  ← GENERAL FARMING
-  ← COTTON
-  ← SPECIAL CROPS & GEN. FARMING
-  ← FRUIT & GEN. FARMING

UNIT 38: MAINTENANCE AND REPAIR CAREERS
(Suggested Time: Five Days)

Behavioral Objectives

1. The student will analyze the career opportunities for himself and be able to write a short summary and give an oral report to the class on one occupation of his choice.
2. The student will write a paper on two careers in this unit giving a parallel summary to be handed in for grade.
3. The student will gain knowledge and skill in maintenance and repair of basic home tools and machines as evidenced by keeping a record of problems and solutions.

INSTRUCTIONAL

- . Discuss the different career opportunities in this unit and make assignment to each student of an occupational exploration and prepare an oral report to answer questions on Handout #2.
- . Each student should research at least two career clusters using the Parallel Research Form.

ENRICHMENT

- . Ask each student to identify some problem at home that needs to be solved such as, a leaky faucet, defective electrical devices (switches, outlets, cord connections), sticking furniture drawers, broken furniture, small motor problems, etc.
- . When possible the object will be brought to class for repair. If not, a similar situation will be worked out as a demonstration for the class. Each student will keep a record in his notebook of all items brought to class for repair.

RESOURCES

Form A
Handouts #1 and 1A
Handout #2

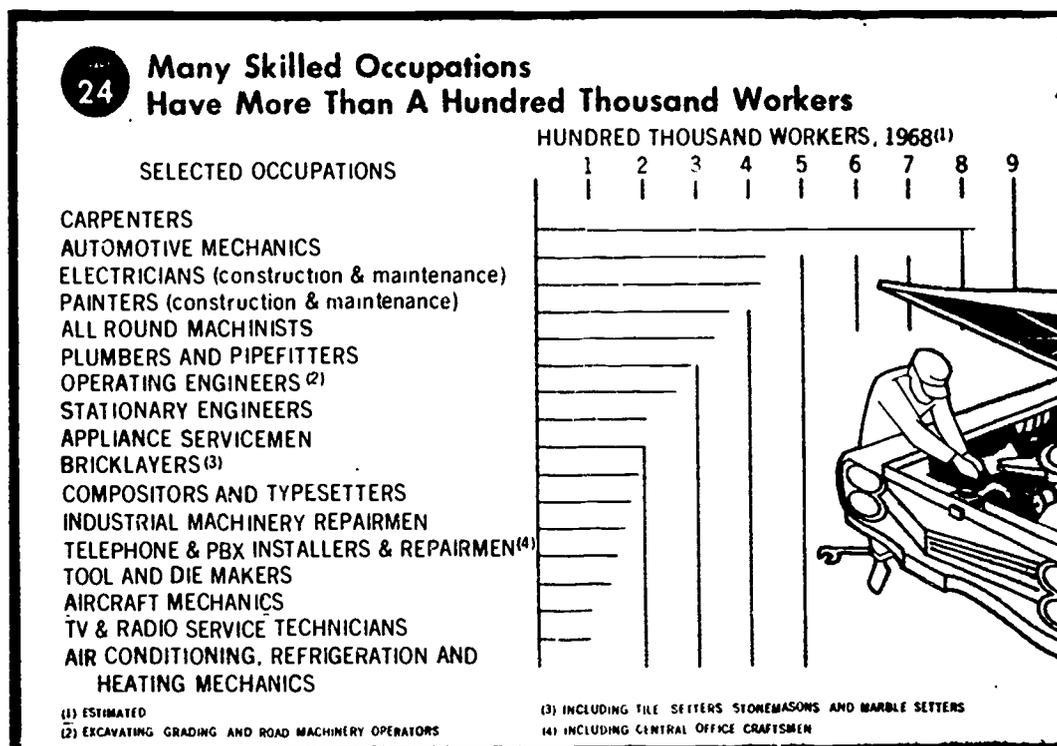
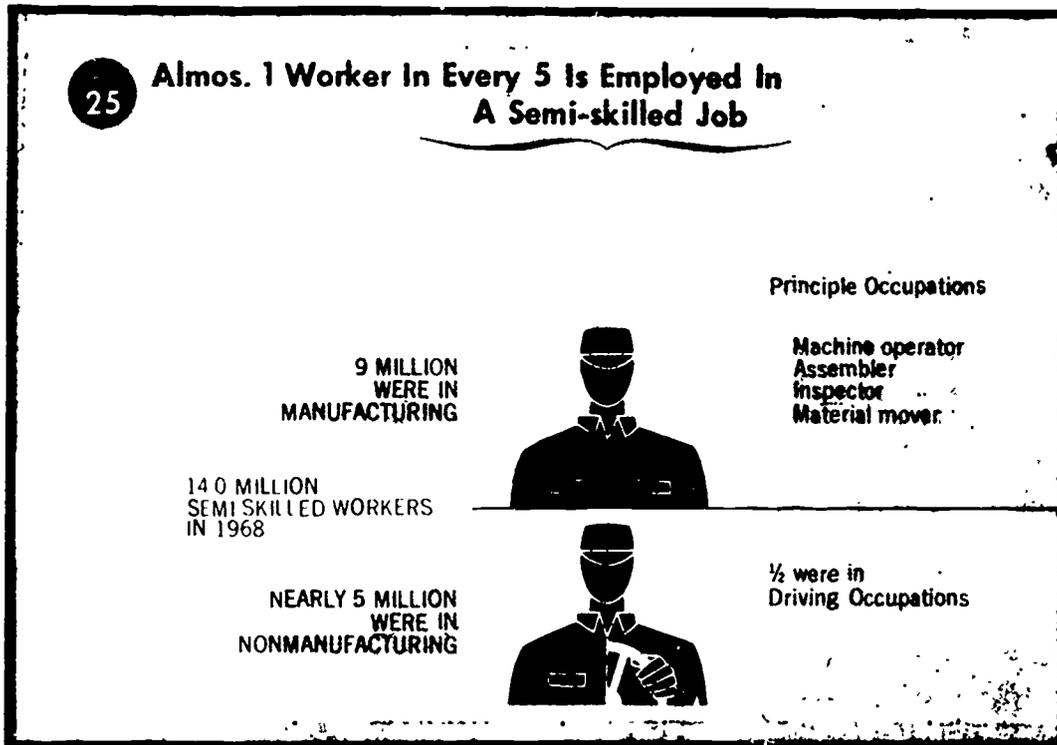
Handout #3 and
portions of Form A.

Handout #4

MAINTENANCE AND REPAIR CAREERS

1. Air Conditioning, Refrigeration, and Heating Mechanics install, maintain, and repair mechanical equipment and appliances used to supply heat, conditioned air, refrigeration, water, and related utilities in homes and commercial or industrial establishments.
2. Appliance Servicemen service and repair major appliances which include air conditioning units, refrigerators, washing machines, clothes dryers, and dishwashers. They also repair small appliances such as toasters, mixers, coffee makers, and grills.
3. Business and Commercial Machine Repairmen maintain and repair calculating, bookkeeping, addressing, duplicating, and related machines including both manual and electric typewriters, cash registers, and electronic and data processing equipment.
4. Communications Equipment Installers and Repairmen assemble, maintain, and repair wire and wireless telephone and telegraph equipment and parts, radio and television broadcasting equipment and parts, electronic field detection apparatus, light and heat emission operating apparatus, object detection apparatus and navigational electronic equipment, air craft and missile control systems, electronic data processing equipment, and electronic and electric communication and signaling products.
5. Instrument Repairmen install, repair, and service the complex industrial and scientific instruments that measure, record, or control variables such as heat, electricity, pressure, liquid flow, and chemical composition. These workers service instruments used to refine oil, guide airplanes and missiles, generate electricity, conduct laboratory experiments, and manufacture steel. They also service instruments used in nuclear energy, oceanography, medicine, and optics. The repair and service of special electronic hydraulic and pneumatic instruments are also included.
6. Combination Welders weld metal parts together according to layouts, blueprints, or work orders, using bottled gas welding or brazing and any combination of ARC welding processes. They perform related tasks such as flame cutting and grinding.
7. Motorized Vehicle and Engineering Equipment Mechanics and Repairmen repair engines and accessories, power trains, suspension systems, and other mechanical units of automobiles, trucks, tractors, buses, and trackless trolleys; graders, bulldozers, cranes, power shovels, portable air compressors, and other gasoline or diesel powered engineering equipment; motorized material-handling equipment such as forklifts and lumber carriers. Careers in these areas include auto diesel, farm machinery and truck and bus mechanics.

Workers engaged in maintenance and repair occupations are generally classed as skilled, semiskilled, and unskilled. These are sometimes referred to as manual occupations. People in these occupations have mechanical interests and abilities.



UNIT 38
Handout Sheet #2

OUTLINE FOR SUMMARY REPORT ON CAREER CLUSTERS AND QUESTIONS TO BE ANSWERED:
REPORTS TO BE GIVEN ORALLY

1. Title and description
2. Salary schedule and advancement
3. Location of occupation
4. Amount of travel required
5. Working environment (inside or outside)
6. Type of work
7. Fringe benefits
8. Retirement benefits
9. Future outlook for job
10. Initial capital required
11. Education or training required (Different skills required)
12. Hours per week
13. Safety factors
14. Employer-employee relations
15. Cost of living

PARALLEL RESEARCH FORM

This form is used to make comparisons in different areas of two different clusters. Your findings in each area are listed opposite each other so that quick comparisons can be made.

Factors to Consider	Title of Occupations	
1. Description		
2. Working Conditions and Environment		
3. Outlook for duration and advancement		
4. Tools and processes		
5. Personal Qualifications		
6. Economic return and benefits		
7. Location of occupation		
8. Is it a transient occupation?		
9. What are the regular hours?		
10. Safety factors		

RECORD OF REPAIR

Student's Name _____		
Period _____	Date _____	
Job Assignment _____		
Time Started _____	Time Finished _____	
(Describe briefly repairs to be done.) 		
(Describe briefly what you actually did.) 		
(Bill of Materials)		
Quantity	Description	Cost
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

UNIT 39: TRANSPORTATION CAREERS
(Suggested Time: Three Days)

Behavioral Objectives

1. The student will be familiar with the career opportunities within the transportation of goods and materials, and be able to give an oral or written report on at least two of the major areas.
2. The student will be familiar with the occupational opportunities within the transportation of passengers and be able to give an oral or written report on at least two of the general areas.
3. The student will be able to satisfactorily pass the written phase of the Arkansas Drivers Examination pertaining to the future procurement of a learner's permit.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
. Discuss and make assignments on career opportunities in the transportation of goods and materials--assign areas to groups of students to cover air, water, and land transportation.	Form A
. Each student will hand in for a grade an outline of one occupation in transportation.	Form B
. Discuss and make assignments on career opportunities in the transportation of passengers, to cover air, water, and land transportation. Have students interview someone in the area involved in one of the occupations, and make a report.	Form C
. Discuss the major means of transportation.	Handout #1
. Assign students to study the Arkansas Driver's License Manual. Discuss in class.	<u>Arkansas Driver's License Manual</u> Arkansas State Police
. Invite State or local police to talk on safe driving.	Local or State Police
. Show film on safe driving.	Local or State Police
. Discuss highway signs, signals, and pavement markings.	Handout #2
. Administer test on license manual.	

TRANSPORTATION INDUSTRY

The transportation industry moves goods and people about the country by air, rail, water, and highway.

AIR TRANSPORTATION INDUSTRY: Included in this industry are occupations involved in the operation, maintenance, and repair of transport aircraft for transportation of goods and passengers, the executive control, commercial promotional work of an air transportation system and the operation of airports.

MOTOR VEHICLE TRANSPORTATION INDUSTRY: This industry embraces occupations concerned with the provisions of all types of public motor vehicle transportation for passengers and goods, including the operation of public warehousing and storage establishments. The principal types of facilities covered are: bus transportation lines for city, suburban, inter-city, long distance and sight-seeing and charter trips. Taxi cab service is also included in this industry.

RAILROAD TRANSPORTATION INDUSTRY: These occupations involve the operation, maintenance, and repair of railroads, railroad equipment and allied services such as sleeping and dining car service and railway express. The industry covers steam railroads, electric railroads, diesel railroads, inter-urban railways, street and suburban railways.

WATER TRANSPORTATION INDUSTRY: This industry includes occupations in the operation of ships, barges, ferries, tugboats and other vessels engaged in transporting freight and passengers, and such supporting services as loading and unloading cargo and booking steamship passage. Occupations in the regulation of port traffic, collection of customs and duties, and inspection and certification of vessels by public authorities are included in government services.

HIGHWAY SIGNS, TRAFFIC SIGNALS, AND PAVEMENT MARKINGS

HIGHWAY SIGNS

There are five standard sign shapes used almost universally to convey various messages or regulations. It is essential that a driver be capable of recognizing the outlines of the five types of highway signs whenever darkness or weather conditions obscure the actual message on the sign.

1. The eight-sided (octagonal) shaped sign always means STOP. A stop sign is normally red with white letters.
2. The three-sided (triangular) sign always means YIELD RIGHT-OF-WAY. This sign is normally yellow with black letters.
3. A round sign always means RAILROAD CROSSING. This sign is normally yellow or white with black markings.
4. A diamond-shaped sign means WARNING. These signs are normally yellow with black letters or markings.
5. A rectangular sign conveys REGULATIONS AND INFORMATION essential or helpful to a driver.

TRAFFIC SIGNALS

A traffic signal is an electrical device which warns drivers or directs them to do something. Disregarding or disobeying a traffic signal is a misdemeanor, as well as a dangerous and foolish mistake.

A Steady Green Light means that the driver may proceed through the intersection or turn right or left, unless prohibited by some other sign or signal. He must first, however, yield the right-of-way to pedestrians and vehicles which were within the intersection when the light changed.

A Steady Yellow Light means the light will very soon change to red. The driver must stop before entering the intersection, or before entering the crosswalk.

A Steady Red light means stop before entering the intersection, or if there is a crosswalk, before entering it. Right or left turns may be made even though there is a steady red light only if a green arrow or a sign so indicates.

A Flashing Yellow Light means that the driver must slow down (due to a hazardous location) and proceed cautiously through the intersection.

A Flashing Red Light means exactly the same thing as a stop sign. It is used at locations where visibility is such that a stop sign may not be seen.

UNIT 39
Handout #2, cont.

A Set of Two Alternately Flashing Red Lights, sometimes in conjunction with a crossing gate at a railroad crossing means that a train is approaching or crossing the roadway.

PAVEMENT MARKINGS

Pavement Markings are used like highway signs to warn and direct drivers and to regulate traffic. There are three types of center lines:

1. Broken White Lines are usually used on two-lane rural roads and highways.
2. Solid White Lines are usually used in urban areas.
3. A No-Passing line is a single, solid yellow line located a few inches to the right of the center line. Double Yellow Lines are used to indicate that passing is prohibited from either direction.

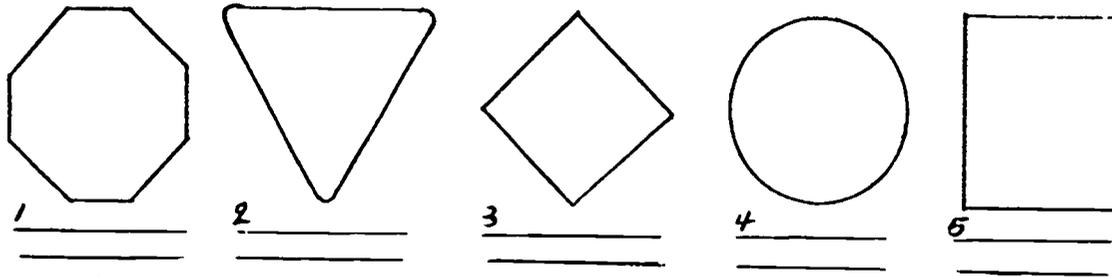
Crosswalk Lines are solid white lines extending across the pavement approximately 6 feet apart.

Stop Lines are white lines one or two feet wide painted across the pavement in conjunction with a stop sign.

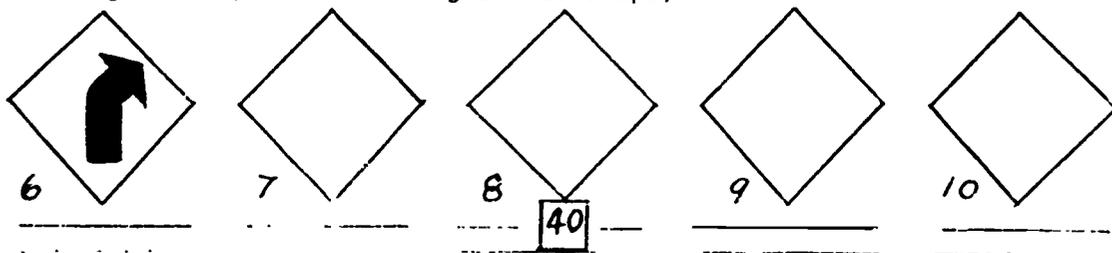
Yellow Lines and White Diagonal Stripes are sometimes used to mark fixed objects or to channel traffic into different lanes.

UNIT 39
Sign and Signal Test

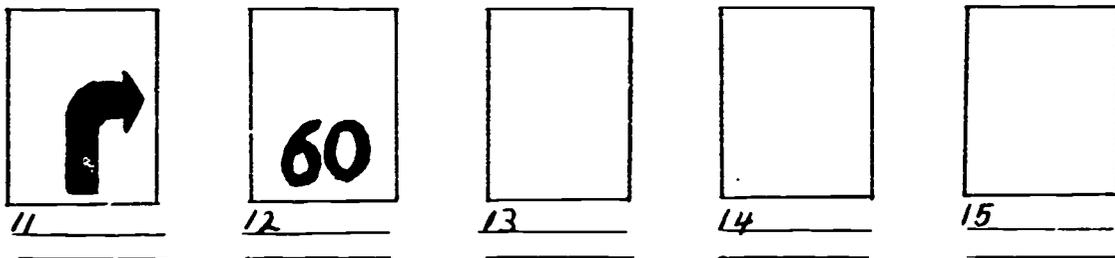
HIGHWAY SIGNS, TRAFFIC SIGNALS, AND PAVEMENT MARKERS



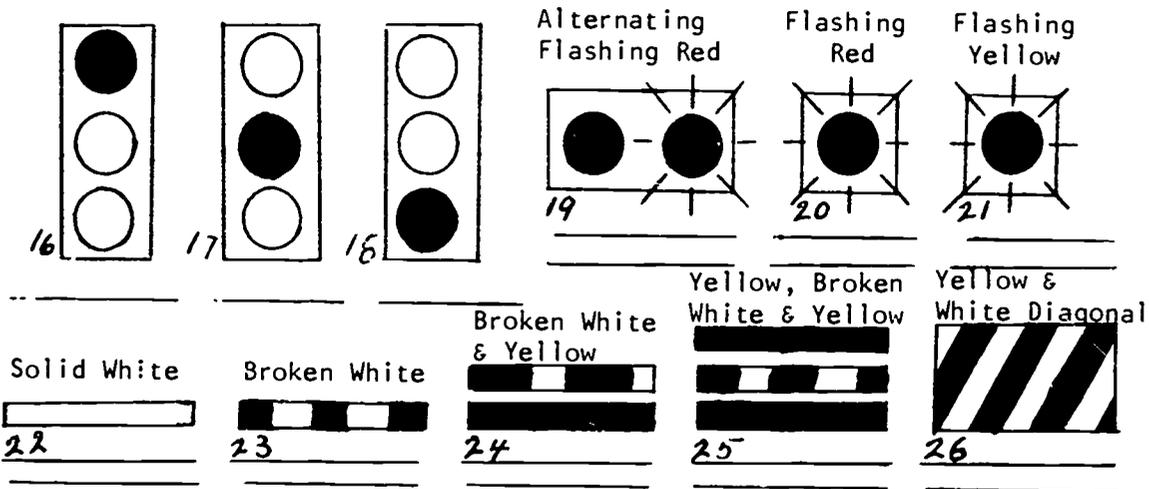
1. Signs 1 through 5 - Indicate in spaces provided the message each sign conveys. (According to its shape)



2. Signs 6 through 10 - Complete the signs using 6 as an example. Indicate the meaning in the space provided.



3. Signs 11 through 15 - Follow the same procedure as above.



4. Signs 16 through 21 - Indicate the meaning of the signs in the space provided. (Black circles indicate which signal is on.)

5. Signs 22 through 26 - Indicate when these lines are used.

UNIT 40: PLANNING THE HIGH SCHOOL PROGRAM
(Suggested Time: Three Days)

Behavioral Objectives

1. The student will have general knowledge of the various career opportunities that are available to him as measured by his ability to score 70 percent accuracy on a teacher-made test.
2. The student will be able to select an appropriate curriculum for further study by evaluating his interests, abilities, and past experiences.

<u>INSTRUCTIONAL</u>	<u>RESOURCES</u>
<ul style="list-style-type: none">. Administer year-end teacher-made test.. Discuss test results with students.. Give Kuder Preference Test (Form E) and allow students to make own profile sheet.. Assist students in selecting courses of study for the coming year.	Counselor

A P P E N D I X

FORM A

IMPORTANT: SAVE THIS INFORMATION TO BE USED IN OTHER UNITS

Student Guide for Systematically Studying and Exploring an Occupation

1. Classification of job
 - A. General
 - B. Specific branch
 - C. Name of particular job
2. Duties performed (major)
 - A.
 - B.
 - C.
 - D.
 - E.
3. Personality traits, interest, aptitudes, physical requirements for job
 - A.
 - B.
 - C.
 - D.
 - E.
 - F.
 - G.
 - H.
 - I.
 - J.
4. Which of the above personal characteristics do I have? Do not have?
Check (x) on left side those characteristics that you possess.
5. Education or training needed for job
 - A. Skills needed
 - 1.
 - 2.
 - 3.
 - B. High school courses needed for job
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
 - 6.
 - C. Where can the necessary training be obtained?
6. What responsibilities will this job require?
 - A.
 - B.
 - C.
 - D.
 - E.
 - F.

Do I want to accept these?
7. Does this job coincide with my interests?
8. Could I get satisfaction from doing this type of work?
9. Would I be satisfied with the rate of promotion that can be expected?
10. Would this occupation require moving to new areas?
11. Would this occupation require traveling?
 - A. Daily
 - B. Overnight
12. What is the outlook for this occupation?
 - A. Jobs available locally
 - 1.
 - 2.
 - 3.
 - 4.

FORM A
Continued

- B. Jobs available in State
1. 3.
2. 4.
- C. Jobs available nationally
1. 3.
2. 4.
13. Will working at this occupation prepare me for working in other fields?
14. Will I be satisfied with the income and standard of living afforded by this occupation?
15. Will this occupation give me the social status I desire?
16. Are the possibilities for entering this field of employment good?
17. How many hours per week will this job require?
A. Will this provide enough leisure for the leisure time activities I want?
B. Will the job require working different shifts?
18. What are the health hazards of this occupation?
A. Physical health
1. 2.
B. Emotional health
1. 2.
19. Will special equipment and/or clothing be required?
1. 4.
2. 5.
3. 6.
20. What fringe benefits are available?
A. Insurance
B. Retirement
C. Safety equipment
21. Employee organizations
A. Would you be expected to join a union?
B. Other organization
22. What way is this job of service to the community?
A.
B.
C.
23. Methods and sources of information used to make this study.
A. Was a field trip made? Yes No Name of place _____
B. Was laboratory work provided? Yes No
C. Name of people you interviewed and what relation to you, if any?
1.
2.
3.
D. Name of books, pamphlets, etc., you read
1.
2.
3.
4.
5.
6.
E. Did you do role playing in exploring this occupation? Explain.

SUGGESTED GUIDELINES FOR SPEAKERS
FOR INVESTIGATING CAREER OPPORTUNITIES

After the initial contact has been made:

1. Obtain background information about the speaker in order to present this in introducing him.
2. Send the speaker a copy of these guidelines.
3. Provide information to the speaker describing the type of students and the program.
4. Request the speaker, in his remarks, to urge students to graduate from school and to discourage dropouts.
5. Ask the speaker to cover:
 - A. Job opportunities
 - B. Types of occupations in his business field
 - C. Job requirements
 - D. Attitudes
 - E. Attendance
 - F. Training and education needed by the student for this type of work would be related to the industry being discussed.
 - G. How do we get this type of training in high school?
6. Ask the speaker to cover this question: What are the satisfactions that workers have from this type of work?
7. Indicate to speaker that maximum speaking time should be held to thirty minutes so that there will be time for student questions.

Hints to Vocational Orientation Teacher

8. Prior to the speaker's visit, orient students to the industry or field to be discussed; include the use of filmstrips when they are available. Prepare students with outline sent to speaker so that they can be prepared to ask questions about items the speaker may not cover in his talk.
9. Provide follow-up with students the next day and thereafter. A well-prepared notebook by the students will provide records of vital information needed for them to make decisions about the occupation explored.

Note: The content of Items 5 - 8 to be covered by speaker should coordinate with the content being studied by the students.

INTERVIEW REPORT

Student's name _____

Date _____

Name of person interviewed _____

1. What type and how much education is required for your occupation?

2. What chances for advancement are there in your field?

3. Could you tell us about the working conditions in your occupations?

4. What hours are involved?

5. Could you tell us the approximate salary or wages of workers in your occupation?

Beginning _____

Average _____

Highest _____

6. Do you plan to continue in this occupation? _____

7. Why or why not?

8. Are there any dangers involved in this occupation?

9. What fringe benefits are offered?

10. Do workers in your occupation belong to a union? (Name union)

FORM C
Continued

11. What personality traits are helpful in your field?

12. What abilities are required?

13. What physical characteristics are required?

14. What duties do you have in your occupation?

15. Where are you employed?

16. Where is training or education for your job available? (If any is needed)

17. Are there jobs available in your occupation in this area at the present time?

18. Any other comments of interest.

INTRODUCTION TO OCCUPATIONAL CAREER NOTEBOOKS

Vocational Orientation teachers should require their students to keep notebooks during the year. Each student keeps a notebook entitled "OCCUPATIONAL CAREER NOTEBOOK." In this notebook the following items are kept:

1. Film and filmstrips shown
 - a. title and publisher
 - b. detail information gained
 - c. a statement of moral of the film or filmstrip
 - d. likes and dislikes of film or filmstrip
2. Visiting speakers or lecturer
 - a. date of appearance
 - b. name and title
 - c. where employed
 - d. occupation and classification of occupation
 - e. subject and text of lecture
 - f. qualification necessary to get this job
 - g. working conditions
 - h. possibilities for advancement
 - i. salary (approximate)
 - j. approximate life of the occupation
 - k. questions asked and information gained
3. Interviews
 - a. name of person interviewed
 - b. occupation of person interviewed
 - c. where employed
 - d. job classification
 - e. his junior high, high school, and/or college training
 - f. minimum preparation necessary for his job
 - g. other questions asked
 - h. other information gained
 - i. advancement possibilities
 - j. approximate duration of his job
 - k. approximate salary
 - l. other information
4. Teacher lectures
 - a. topic discussed
 - b. information gained
 - c. questions asked
 - d. answers given
 - e. concise statements of information gained from lecture
5. Classroom reports
 - a. subject and date of the report
 - b. by whom given
 - c. source of information for report
 - d. important excerpts from the report
 - e. information gained from report
6. Field trips
 - a. date and place visited
 - b. reason for visiting this place

Form D
Continued

- c. number and classification of occupations there
- d. questions asked and answers given
- e. information gained from questions
- f. things learned from trip - numerically
- 7. Exploratory simulated exercises performed
 - a. date and place of activity
 - b. amount of time spent
 - c. type of simulated exercise done
- 8. Reports of decisions made about each occupation studied and explored
- 9. Copy of educational training program planned and a financial plan
- 10. Copy of plan for obtaining equipment, supplies, tools, etc., for working at a chosen occupation

