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## ABSTRACT

The occupational resource unit, one of a series encompassing grade levels 1-10, was prepared by the Lincoln County (West Virginia) Exemplary Project staff to provide career exploration learning activities for the ninth and tenth grades. The materials are designed to provide experiences that will enable students to make realistic occupational choices, by gaining an understanding of the psychological aspects of work as it relates to their own temperaments, personalities, values, and abilities. The format contains a synopsis of the entire unit, general objectives, behavioral objectives, teaching strategies, hands-on activities, evaluation techniques, and guidelines for correlating subject matter. Instructional materials include an occupational questionnaire for indepth study, fact sheets, a personality inventory, listed interviewing techniques, and typical personnel forms. Sixty-five pages are devoted to a listing of specific occupations within the occupational clusters as they correlate to academic disciplines. This correlation of all the disciplines is intended to aid students in acquiring competencies appropriate to their projected adult societal roles. An extended bibliography lists books, kits, and related audiovisual aids. (MW)

Volume III of Volume I

LINCOLN COUNTY EXEMPLARY PROGRAM

IN

VOCATIONAL EDUCATION

USING THE

OCCUPATIONAL CLUSTERS

IN

CAREER EXPLORATION

Resource Unit

For

Levels Nine and Ten

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## Preface

This resource unit was prepared by the Exemplary Project Staff as a guide for Career Exploration. It was specifically written for levels nine and ten. This unit is to be used as a source of information for all teachers of all subjects (art, science, English, geography, history, biology, literature, algebra, mathematics, typing, music, physical education, driver education and others).

This resource unit should be read completely by all educational personnel involved in the career exploration venture prior to planning and implementing Career Exploration Activities within their system, school or classroom.

RESEARCH MODEL

For

LEVELS NINE AND TEN

Lincoln County School Board Model

for

Career Education

Intensified Training & Post Secondary Levels Eleven, Twelve, Thirteen		
XXXXXXXXXXXXXXXXXXXX		
X	Career Exploration	X
X		X
X	Levels	X
X		X
X	Nine - Ten	X
XXXXXXXXXXXXXXXXXXXX		
Career Orientation Levels Seven - Eight		
Career Awareness Levels One - Six		

Vocational Exemplary Project  
Lincoln County Board of Education  
Hamlin, West Virginia

## TABLE OF CONTENTS

I.	Synopsis.....	1
II.	Staff Involvement.....	3
III.	Student Involvement.....	5
IV.	General Objective.....	7
V.	Specific Process Objectives.....	7
VI.	Behavioral Product Objectives.....	8
VII.	Teaching Strategies.....	9
VIII.	Hands-On Activities.....	15
IX.	Simulation.....	32
X.	Methods of Instruction.....	35
XI.	Utility of Learning Generalizations.....	36
XII.	Diagnosis and Evaluation.....	36
XIII.	Academic and Vocational Preference.....	37
XIV.	Desirable Attitude.....	38
XV.	Criteria For Occupational Selection.....	38
XVI.	Skills and Knowledge.....	39
XVII.	Time Allotment.....	40
XVIII.	Correlation of Subjects.....	41
XIX.	Guided Study in Career Exploration.....	44
XX.	Evaluation Techniques.....	44
XXI.	Methods of Evaluation.....	45
XXII.	Occupational Questionnaire for Indepth Study.....	47
XXIII.	Occupational Information Facts.....	51
XXIV.	Personality Profile.....	54

XXV.	Interview Techniques.....	56
XXVI.	Personal Inventory.....	62
XXVII.	Letter of Application.....	66
XXVIII.	Employment Application.....	68
XXIX.	Field Trips.....	72
XXX.	Types of Educational Institutions.....	77
XXXI.	The Role of Counseling and Guidance in Career Exploration.....	81
XXXII.	Resource Materials.....	92
XXXIII.	Criteria of Different Occupational Levels.....	93
XXXIV.	Occupational Clusters.....	94
	Office Occupational Cluster.....	96
	Marketing and Distribution.....	99
	Consumer and Homemaking.....	101
	Marine Science.....	105
	Transportation.....	108
	Agriculture and Agri Business.....	114
	Construction.....	123
	Manufacturing.....	129
	Public Service.....	134
	Health.....	138
	Arts and Humanities.....	142
	Environmental.....	147
	Communication and Media.....	150
	Hospitality and Recreation.....	157
	Personal Service.....	162
XXXV.	Bibliography.....	164

A SUGGESTIVE RESOURCE UNIT

FOR

LEVELS NINE AND TEN

CAREER EXPLORATION

## I. Synopsis

The ninth and tenth levels of Career Exploration is designed to give students an indepth knowledge of the characteristics and functions, as well as the duties and rewards of specific occupations within a broad spectrum of occupational clusters. Students at this age and grade level have specific characteristics which suggest certain needs and drives toward learning more about occupations. This would enlighten them or help them in selecting the occupation for which they are best suited or the occupation which interests them the most, not only for its intrinsic worth or value, but for self-satisfaction. Students at this level should have the opportunity to explore their capabilities in various areas under a wide variety of occupational situations. Students need the opportunity for self-appraisal of their emerging potential and to analyze occupational information and data so that they will be more knowledgeable in occupational vocational decision making that will affect their future welfare. The students need to understand the necessity of all types of occupations and to learn the educational and occupational requirements of the many different vocations within a broad framework of the overall occupational cluster.

A growing body of literature and research indicates a need for a revision and/or supplement of the secondary school



curriculum, since students' interests, abilities, and needs extend beyond those reflected in current educational practices.

Research in curriculum methodology is moving into a new era, with emphasis on investigating the potential in a reflective theory of self-investigation. The complex problem of unifying theory and practice in the curriculum must be solved in conjunction with an examination of the learning situation as it relates to the occupational choices of the student.

The most common characteristic of learning deficiencies concerning students is a lack of direct or first-hand occupational experiences. Student feelings of insecurity, coupled with the lack of materials or simulated experiences toward self-directed learning goals contribute to the educational problem of not reaching all students with relevant vocational occupational information. During recent years there has been a remarkable growth in self-instructional occupational information concerning vocational decisions and other pertinent data. Simulation kits, tapes, transparencies, cassettes and other audio-visual aides for use at the secondary level, which will if used properly by the classroom teacher, help the students in making the proper choice concerning their vocational future.

Technical and scientific circumstances undoubtedly color the internal structure of any secondary school, and they have a direct bearing upon the type of academic organization needed for curriculum instruction. Pressure on high school students for academic success has increased in response to a widening

access to higher education and its interlinkage to numerous adult occupations. Even with more college placements available, not every high school student will go to college, nor will college seem relevant to those students whose occupational aspirations are held down by family and peer environments or by realistic perceptions by the student of an occupational-vocational choice for the future.

Technology and its effect upon the future generation of students is being conceptualized by an increasing percentage of the leading educational leaders throughout America. The nature of the vocational curriculum for intensified training should reflect these aspects based upon the student's field of interest. Academic performance need not characterize all students who reasonably expect good positions and/or employment in the future. Given the proper interlinking between academic subjects and vocational occupational information, the students will have the opportunity to explore and to make a critical examination of his potential role in society based upon his own personal values as an individual citizen in a dynamic society.

## II. Staff Involvement

Administrator: To implement Career Exploration effectively, it must be fully endorsed from the highest level of school administration of the system as well as possess the full commitment and support of the school building administrator. In the leadership role, the county superintendent has endorsed and supported fully the efforts of all persons

involved in the implementation of Career Education within the Lincoln County School System. The school building principal or administrator has an excellent opportunity to effect change, influence and strengthen the curriculum and to serve the needs of the students of his particular school. His demonstration of optimism, enthusiasm, support, and involvement are of uttermost important as a key element in the overall concept of Career Exploration.

Teacher: The senior high school teacher or instructor plays a vital role in each student's maturation and skill development. The classroom teacher must take this responsibility seriously and help each student in the development of his individual career goal. The teacher is more specialized in regard to his particular subject area and should therefore be more familiar with the wide range of occupations within that particular field of study. The classroom teacher or instructor should be cognizant that he is very influential in the student's evaluation of a particular occupation; therefore, as a classroom teacher he must take extreme professional care and jurisprudence in presenting occupational information so that no value judgements or biases are interjected into the learning experience.

Career Exploration is only as successful as the teacher who is personally motivated and involved in this approach to relevant education. Good ideas come from the classroom teacher who demonstrates enthusiasm and support for the total Career Exploration concept. Without these ingredients, student

growth and program content are likely to be weak in the area of career education. Thus, when evaluating, the teacher who is involved must analyze his implementative process to ascertain whether the experiences were relevant in providing meaningful learning experiences in Career Exploration, achieving the competencies appropriate to the unit objectives and the student level of occupational maturation.

### III. Student Involvement

Career Exploration should provide all students with relevant, meaningful and exciting learning experiences through student centered activities. These activities, designed to stimulate the student's individuality, initiative, and curiosity, emerge in the form of vicarious, simulated, and real-life hands-on experiences in many different ways to each individual student.

Each student should be urged by the individual classroom teacher to participate in each learning activity to the maximum extent of his mental abilities and aptitudes: this will permit him to perform as a contributing member of the classroom and learn how to contribute as a worthwhile member of society.

**Vicarious Experiences:** Each student in the classroom can profit greatly from occupational literature, books, films, filmstrips, and other types of learning materials. These audio-visual materials enable the student to learn about various occupations without actually observing or performing the actual job task. These types of experiences

are valuable tools for individual or group activities and will serve to broaden the student occupational knowledge in areas where it is impossible for them to gain simulated or hands-on experiences.

**Simulated Experiences:** Career Simulation is an effort to reinforce the student's interest in a particular career area. These experiences involving mock job situations and/or job tasks which can be incorporated into Career Exploration under the direction of the classroom teacher. These experiences can provide the student with real stimuli in a non-real setting, allowing each student in the classroom to become mentally, physically and emotionally involved without permanent results or a permanent decision after becoming involved in only one simulated experience. While participating in a variety of simulated experiences in different occupations, the student will develop a basis for organizing a valuing system for experience in which he is best suited and which he excels. Thus the student becomes actively involved in decision-making concerning his potential career.

**Hands-On Experiences:** As the student becomes involved in doing, rather than verbalizing, the need for a concern by the classroom teacher about student motivation will tend to decrease. Actual experiences in on-the-job work situations will provide valuable criteria by which the individual student may evaluate his interests and abilities into actual practice.

Each student in the classroom should participate in the field experiences to his maximum potential.

#### IV. General Objective

To provide experiences for students in levels nine and ten that will enable them to make realistic occupational choices, by gaining an understanding of the psychological aspects of work as it relates to their own temperaments, personalities, values, and abilities.

#### V. Specific Process Objectives

1. To inform students about occupational and educational opportunities at all levels.
2. To provide students not finishing high school with information related to the opportunity to enter an occupational training program and/or employment.
3. To provide students with knowledge in broad fields of work which will assist the individual in making long range vocational plans.
4. To provide "hands on" experience in various occupational fields offered at the county vocational-technical education center.
5. To make the student aware of the continuous changes occurring in the world of work which necessitates continuing education or training in the various career areas.
6. To provide the student with information concerning other educational opportunities. (Colleges and other post-secondary programs.)

## VI. Behavioral Product Objectives

1. To inform students about occupational and educational opportunities at all levels within the occupational cluster.
2. To provide the students with information concerning different careers so that he/she will be able to take purposeful steps within the occupational clusters toward gainful employment.
3. To assist each student in comparing their own self-evaluation with that of the employer's demand in their pre-chosen vocation.
4. To synthesis test results to occupational choices of the students.
5. To develop an appreciation that the nature of occupational patterns indicates job changes, retraining, and flexibility in the world of work.
6. To become knowledgeable of the availability of the different types of occupations as it relates to each occupational cluster.
7. To investigate the advantages and disadvantages of many different types of occupations before making a tentative choice as a chosen vocation.
8. To familiarize the students with types of institutions that normally provide training for his/her selected occupation especially if it is a specialized occupation.
9. To synthesize an understanding of the need for continued education or training in the various occupational areas.

10. To formulate a workable criteria of the various occupations emphasizing the importance of training, education and feasibility of such employment in the future.
11. To investigate different types of training programs that are available to students.
12. To help the student comprehend that "hands-on-experiences" open the door to positions of greater responsibility and greater wage earning power.
13. To utilize knowledge in developing competent job interview techniques and application forms relating to different types of occupations.
14. To stimulate awareness that the educational process does not stop upon graduation from high school.
15. To develop a positive working experience toward career exploration by using practical application of occupational methodologies either in the classroom or laboratory setting.

## VII. Teaching Strategies

1. Involve students with each occupations found in the occupational cluster by:
  - (a) Making a scrapbook of the occupations within the occupational cluster.
  - (b) Developing a workable model of the occupational cluster as it relates to the individual student.
  - (c) Structuring a dramatization by the entire class dealing with the occupational cluster.



2. Use a sequence of transparencies to point out major geographic areas where occupations in the cluster are located.

- (a) Local
- (b) State
- (c) National
- (d) World

Note: Different kinds of symbols should be used to identify the different types of occupations as they relate to the different occupational clusters.

3. Develop a series of occupational brochures and posters portraying the different occupations that have been studied within the occupational cluster.

Note: This activity could be done on an individualized basis or by students working together in a group.

4. Construction of audio-visual aids by students which would show occupations as they relate to the various clusters within the occupational cluster. These aids would also show the skills needed to perform effectively in the given occupation.

Note: This can be done effectively in a number of ways. Skills and requirements should be stressed which are needed by the employee to function productively in his chosen occupation. The dignity of man regardless of his occupation should be stressed as he performs a useful role in the overall development of the world of work.

- (a) Bulletin Boards
- (b) Charts
- (c) Graphs

- (d) Newspapers
- (e) Murals
- (f) Posters
- (g) Television Scripts
- (h) Games
- (i) Tapes
- (j) Records
- (k) Comics
- (l) Puzzles, etc.

5. Compare the different occupational aspects of the world of work as they relate to the occupational cluster in which they are studying.

- (a) Economic Trends
- (b) Ecology Trends
- (c) Labor Trends
- (d) Transportation Trends
- (e) Social Trends
- (f) Political Trends
- (g) Scientific Trends
- (h) Military Trends
- (i) Governmental Trends on State, National, and World Developments
- (j) Future Needs or Trends

6. Presentation of materials and information gathered as the students studies the occupation within the occupational cluster.

- (a) Written Reports
- (b) Speeches
- (c) Oral Reports
- (d) Pantomime
- (e) Panel Discussions
- (f) Demonstrations
- (g) Debates
- (h) Role Playing
- (i) Simulation

7. Plan field trips to various occupations that would cover a wide range or variety of occupations within a given cluster and/or a correlation of different occupational clusters.
8. Invite outside speakers to come to the class to discuss their roles or job duties that they perform within the occupation. The outside speaker should be one who would cover a wide spectrum within the occupational cluster. Speakers should be able to demonstrate the competencies needed to perform effectively within the occupation.
9. Gain broader insights on the occupations within the clusters which would enable him to begin preparation for the type of employment they may be considering as a vocation.
  - (a) Analysis should be used extensively in this phase of individual development.
  - (b) Job Interviews
  - (c) Salaries

- (d) Working Conditions
  - (e) Advancement Procedures
  - (f) Growth of the company, industry, or corporation.
  - (g) Security to the individual by being in this type of employment.
  - (h) Locations of these types of employment.
10. Provide appropriate films, filmstrips, slides, or movies showing different types of occupations as they relate to the occupational cluster.
- (a) Films, filmstrips, or other audio-visual aids should be selected based on the interest of the students as it relates to the cluster being studied.
  - (b) Follow up study of each audio-visual aid with the possibility of individual growth in some phase of occupational knowledge.
  - (c) Students should be encouraged to do individual research projects concerning different types of occupations as they relate to the occupational cluster.
11. Compile a questionnaire concerning the major requirements of some of the different occupations as they relate to values, characteristics and attitudes connected with different types of careers.

Note: Many different aspects should be considered in the overall questionnaire of job and occupational readiness.

- (a) Abilities Needed
- (b) Educational Training
  - 1. Elementary
  - 2. Secondary
  - 3. Vocational
  - 4. Post-secondary Technical Training
  - 5. College
  - 6. University

(c) Physical Skills

1. Manual Dexterity
2. Psychomotor

(d) Mental Skills

1. Trainability
2. Communication Skills

(e) Sensory Perception

1. Sight
2. Feeling
3. Hearing
4. Tasting

(f) Working conditions as they relate to the individual's suitability for a particular area of career involvement.

1. Inside
2. Outside
3. Physical Demands
4. Aptitude
5. Hazards

(g) Importance of different types of occupations as related to the inter-dependence of nations.

1. National Priorities.
2. Self-satisfaction in the economic well-being of the individual
3. National goals as related to the economic well-being of the cluster.
4. The overall effects that clusters have upon each other.

12. Describe various types of occupations as related to the geographical location of the country.

- (a) Frigid Climate
- (b) Hot Climate
- (c) Wet Climate
- (d) Arid Climate

13. Stressing self-awareness and personal growth in all students. Teachers and counselors should collaborate to help students begin to focus systematically and comprehensively upon the dimensions of self-awareness and personal growth as these affect and are affected by their exposure to the concepts, ideas, practices and realities of the world of work. These areas should be dealt with in a general fashion in the classroom setting by the teacher and/or counselor, and in individual sessions. Of specific importance in the interpersonal-intrapersonal realm might be listed such areas as:

- (a) A developing and strengthened sense of the importance of useful work in our society, and a corresponding respect for all those who perform such work, as well as insight into contemporary trends in the development of new and innovative concepts of the work ethic.
- (b) The necessity for effective cooperation, collaboration, and communication with others in any meaningful human endeavor, whether work or non-work, with particular attention to factors facilitating and hindering teamwork and task completion.
- (c) The diverse life styles, values, and roles associated with the many different occupations in our society, and an increased ability to accept the validity of a variety of styles without hostility and alienation.

#### VIII. Hands-On Activities

Hands-on activities present a positive approach of career choice activities which indicate individual decision making

strategies that could be used to motivate the students. Personal activities that involve the students give positive feedback concerning appropriate decision making in occupational clusters.

Hands-on activities will provide the students an in-depth understanding and utilization of the information that they must have before they can make a realistic choice in any particular occupational cluster. A systematic examination of each activity as a purposive, goal seeking, learning organism is worthwhile to the students if they are to be successful in the world of work.

Students acquire value systems which influence their choices of occupations. When occupational information is given to a student, it is filtered through psychological sets, attitudes, preconceptions, and defenses. Students in the ninth and tenth grades have limited and questionable information about occupations and are not ready for specific vocational choices. Work has little meaning for them and they have often developed biases against certain occupational areas. Hands-on activities will inculcate in the students an awareness of some of the vast numbers of career opportunities within each occupational cluster and will stimulate students to realize the importance of having career goals, not only for self-realization and personal fulfillment, but for vocational success in any occupational field regardless of the occupational cluster involved.

Hands-on activities at the ninth and tenth grades will help the student cope with the knowledge avalanche of the last decade and to achieve three developmental tasks: (1) organizing one's knowledge of social and physical reality, (2) learning to work well with and in peer groups, (3) becoming an independent person in the world of work.

The role of the classroom teacher during hands-on activities includes: (1) helping each student to see himself as worthy, (2) helping each student experience success, (3) helping each student to understand the inner functions of the activity so that it is a worthwhile learning experience, (4) helping each student to realize that there is dignity in doing a job well, (5) helping students consider and make decisions regarding the values of work as they interact with each other, (6) helping each student develop an understanding of his own talents, and (7) helping students make choices from a wide range of occupations that are structured around each occupational cluster.

The Lincoln County Vocational Technical Center facilities will be utilized in providing ninth and tenth level students with hands-on experiences or activities in the following occupational cluster areas:

Office Occupational Cluster

This would include hands-on activities in typing, accounting, office practice, office machines, duplicating machines,



offset machines, copying machines, mimeograph machines, key punch machines, clerical and secretarial training.

#### Transportation Occupational Cluster

Hands-on activities in this cluster would involve the students in hydraulics, pneumatics, small engine repair, and a general overview of the combustion engine as it relates to the general mode of transportation.

#### Construction Occupational Cluster

In this phase of different activities the students would become involved in building construction and maintenance which would include masonry, carpentry, basic electronics, general plumbing, tile setting, and basic blueprint reading.

#### Manufacturing Occupational Cluster

Welding would permit the students in this category of hands-on activities the opportunity to obtain the fundamentals of gas welding, electric stick welding, oxygen acetylene cutting, inert gas welding, basic blueprint reading, layout work and fitting products together.

Industrial sewing would include an appreciation of assembly line sewing using industrial sewing machines. Students would receive hands-on activities with the machines in the area of basic apparel. Other types of hands-on activities would include fitting, basting, hemming, trimming and packing the finished product.

### Health Occupational Cluster

In this area of student competence hands-on activities would include medical record keeping, inventorying medical supplies and equipment, temperature readings, blood pressures, personal care of a patient, bed making and sanitary procedures to be used as a medical nursing assistant.

### Hospitality and Recreation Occupational Cluster

The hotel and motel aides and management curriculum would provide the students with hands-on activities in house-keeping, decorating, hospitality, office procedures, safety of guest, and other areas needed to be known in the hotel-motel industry.

### Consumer and Homemaking Occupational Cluster

In consumer and homemaking the students would be provided with hands-on activities as a short order cook, chef, waiter, dishwasher, salad maker, waitress and pastry decorator. Residential home economics would provide other hands-on activities for the students in general housekeeping, family budget making, family cooking, menu planning, grocery selections and basic home sewing.

Through the use of hands-on activities, the ninth and tenth grade classroom teachers in the local secondary schools are in the position to strike a balance between the conventional goals of the school and the emerging vocational goals and talents of the students. Students can enjoy learning for its own sake; and it is in these levels that the students can

begin to make some tentative plans for the future by gaining valuable inputs of occupational knowledge through a wide range of hands-on activities within the classroom of the academic school.

The secondary school curriculum can provide an inter-linking of these occupational clusters through the following methods:

#### Marketing and Distribution Occupational Cluster

Marketing and distribution occupational hands-on activity can be obtained for the students by allowing them to assist in ordering school supplies for the different teachers, clubs, office, cafeteria and other materials which would be used for special school events. This type of hands-on experiences could be inter-locked into the general business class or a mathematics class.

Other types of hands-on activities could be implemented within the individual classroom by utilizing the facilities of the total school plant. Some of these activities would include such work experiences or activity as working in the school office, book store, cafeteria, or selling tickets to the different activities that the classes or school would sponsor during the school term.

#### Marine Science Occupational Cluster

In biology class the study of fish life, algae or the dissection of different species of fishes, toads and frogs in relationship to various water solutions which were obtained from local streams in the area. This type of hands-on

activity would give the students a basic understanding of marine science and its impact upon the total environment.

#### Agri-business and Natural Resources Occupational Cluster

Students enrolled in science class could do hands-on activities in growing different plants in different types of soil under controlled conditions as to water, soil, heat and food additives. This would give the students the impetus which they could use at their own homes in caring for their gardens, lawns or products that they may raise either for their own use or for market.

Soil, crop and livestock research could be done by those students who either live on a farm or have access to a farm. This type of hands-on activities could result in less soil erosion, better crop rotation and the production of better livestock through improved feeding materials and genetics.

Different types of activities could be planned in the classroom and then carried out by the students during class or after school or on Saturday. Clear timber cutting procedures could be worked out by the students in a Earth Science Class with the assistance of the conservation and forestry officials for field experiences in hands-on activities.

Many tobacco farmers in the local area would welcome the opportunity to work with young people in letting them help in the preparation of tobacco for market. This type of hands-

on activities or experiences is valuable training for those students who might be considering a career in agriculture or agri-business.

The Lincoln County Experimental Farm under the direction of the Agriculture Department of West Virginia University can be utilized by the students for studying scientific management of different products such as tomatoes and strawberries. This type of learning experience with hands-on activities is important for those students who might be considering a career in some phase of agriculture or agri-business.

The agri-business and natural resources occupational cluster will be further enhanced with the start of vocational agriculture classes at the start of the 1973/74 school term. These classes will give the students the opportunity who are interested in agriculture or agricultural offshoots the criterion for indepth study and hands-on activities in many different areas of agriculture or agri-business.

#### Public Service Occupational Cluster

Public service occupations can provide for hands-on activities for the students which can be accomplished in any of the social studies classes or by the student government or council of the school. One example would be the students working with the law enforcement officials of the area for better protection at school activities or for more highway protection and better law enforcement at school zones. Yet another way could be provided for hands-on activities in the public service

occupational involvement would be through mock campaigns and elections. This type of student involvement would not only create interest within the curriculum areas but would allow for the students to become involved in different facets of our governmental processes and procedures.

Other types of public service occupations that could be utilized by the schools are seminars on drug abuse and ways to control it by using resource persons within the community and student panels. This type of seminar could easily be conducted by students in either a social studies class or those students doing extensive research in a chemistry class.

Students who wish for hands on activities in their study hall period or part of their lunch period could work with the head start children who are enrolled within the local areas. This type of activity should provide the students with hands-on activities and experiences in caring for younger children.

These different suggested activities are but a few that could be incorporated into the existing curriculum where the students can obtain hands on activities within the public service occupational cluster.

#### Fine Arts and Humanities Occupational Cluster

The fine arts and humanities occupational cluster could be interlocked into the curriculum through speech classes where the students would use extemporaneous, oral interpretation, debate and modes of speeches dealing with different occupational areas thus giving the students not only a valuable speaking experience, but a creative one as well.

Dramatics could be included in speech class as well as in the span clubs, school assemblies or play productions. These forms of hands-on activities would provide the students with primary knowledge of the performing arts as they take place before an audience in a real work situation.

It is entirely feasible that with the cooperation of WMUL-TV, Channel 33, Marshall University, Huntington, West Virginia, that certain types of productions could be correlated so they could be produced for educational television showing.

Art class would be ideal for the students to learn the different types of art expressions as the students do their creation using the different types of medias to express their inner self whether it be on canvas, sculpture, macrame or free form art. School bulletin boards, murals, advertisements for the school newspaper or annual are outstanding methods for the students to obtain hands-on experiences as artists or doing work in the creative area.

A student art exhibit, whether it be in the school or on the local sidewalk, is one method the students can use. They can use the management phase of their art experiences to gain hands-on experiences in setting up, displaying, selling and managing the total art exhibit.

Glee club activities or music class is ideal for the students in becoming familiar with music not only for the appreciation and participation but for the possibility of a career choice later on in life. If the student or students

are interested in this type of a future career, participation in school functions where singing is a prime method of gaining hands-on activity in this particular area of the cluster.

Participation in civic affairs or to become a member of the youth or adult choir of their church are other methods that the students may obtain hands-on activities in this cluster area.

Band and related activities is one of the main areas in the school where the students can learn the indepth workings of musical instruments and how to perform musically under different types of activities involving such areas as sport events, musicals, dramatics, dances and other forms of musical spectacles. This type of hands-on experiences for the students who are considering some type of career in the musical area is an asset to them in their occupational choice.

Working in the public library and the school library would be another way students can acquire hands-on activities in the fine arts and humanities occupational cluster.

Foreign language classes in the local high schools can be utilized by the students in the fine arts and humanities occupational cluster to gain a overview of a foreign language or languages.

This type of comprehension could lead many students to employment in different types of government occupations as well as different industries.



Creative writing should be encouraged and practiced in the English, journalism and foreign language classes. In this area of student development hands-on experiences and a knowledge of journalistic writing style can be developed. This competency would assist the student in hands-on activities for many different related occupations besides the fine arts and humanities occupational cluster. In creative writing the students should be given a free hand to explore and express different writing styles and topics more especially those of current interest locally, state and national. If it is possible many of these expositions should be published in the school newspaper and in the local newspaper.

Different Indian artifacts which can be found locally could be studied by the students in different social studies classes giving the students hands-on activities in utilizing past civilizations as a means of bringing anthropology into the existing curriculum. This would make the study of past civilizations more relevant and interesting for all students, especially for those students who may express a desire for occupational knowledge in this area of their learning experiences. This area of study in the fine arts and humanities occupational cluster is effective in bringing the realities involved in the humanities into a classroom setting using past civilizations of the area for the learning environment which is necessary for hands-on activities.

### Environmental Occupational Cluster

Environmental occupations can be interlinked into the existing science curriculum of the secondary schools, without any changes needed in the general structure of the total school. Noise abatement and control within the school plant can be analyzed by the students in the science classes, by using scientific methods can effectively control the noise element within the school facilities.

Ornamental horticulture is one area within the science curriculum that the students can acquire hands-on activity. In this area not only can the students do indepth study and hands-on experiences but can do landscape and beautification projects on the school ground, and in different community beautification projects. This application of hands-on activities would give the students interested in this field of employment an incentive for learning and different types of occupational experiences. Hands-on activities of occupational knowledge can be accomplished in this cluster in science, biology, earth science and physical science curriculums.

Water pollution of the local streams can be collected, analyzed and studied by the students in chemistry class and other science classes. This activity could lead to a clean stream project or to a need for more pure water in our environment.

One of the outstanding projects for any science class would be the establishment of a wildlife and bird sanctuary

on excessive hillside property owned by the county board of education. In this natural setting the students would be studying the wildlife in their natural habitat, thus gaining hands-on activity on how wildlife does contribute to the overall balance of nature.

Sewage abatement and control should be studied by the different science classes with periodic field trips to the public treatment facilities thus providing the students the opportunity to practice practical applications of knowledge gaining hands-on activity in this area of environmental control occupational cluster.

Many different types of hands-on experiences or activities should be obtained for the students in the ninth and tenth levels in their different science classes regarding mineral extraction. This type of activity can be accomplished by field trips to different strip mines, shaft mines or visiting a drilling site which is being explored for natural gas or oil. Hands-on experiences in the drilling area should be obtained by field trip visitation within the local area to a water drilling site which would provide water for a local resident. By doing indepth study and research within this area of environmental control and by a limited amount of hands-on activities the students would know if this area would be a target for them to work toward later employment.

#### Communication and Media Occupational Cluster

Different types of activities should be used for the students to gain hands-on activities or experiences in the communication

and media occupational cluster. One activity would be to allow the general business students to do the answering service for the school telephone. Students could make the school announcements over the public address system of the school. Students should be encouraged and given the opportunity to announce the athletic events of the school thus giving them the opportunity to broadcast an event as it happens before an audience. All of these student activities could be interlocked into any class especially into a general business, journalism or speech classes.

Students should be encouraged to take photographs of different school functions and events as it related to the different activities of the total school. These photographs could be developed by the students and later used in the school newspaper or many of them could be used in the school annual. By providing this type of learning experiences in the journalism laboratory the students are being provided with hands-on activity in the communication and media occupational cluster.

#### Personal Service Occupational Cluster

Home economics classes would be ideal for students to receive hands-on experiences or activities in the personal service occupational cluster. Cosmetic demonstrations could be given by resource persons with the students practicing cosmetic grooming on each other for different types of events or occasions. Proper methods of manicuring could be demonstrated to the students by a resource person and then

each student would be given the opportunity to do individual work on a student model, thus obtaining hands-on activity in this area of the personal service occupational cluster.

A weight control clinic could be established with the cooperation of the home economic classes and the physical education classes. Hands-on activities would include the students establishing certain types of exercise routines, and the establishment of menus according to the different types of physical activity each individual student is enrolled in the weight control clinic.

Students who are interested in mortuary science as a future career could arrange with the local mortuaries to answer the telephone for a given period of time or perhaps answer the door when a family is receiving visitors. Legally at no time is the student or students in this area of hands-on activity to be involved with the care, preparation and presentation of the deceased.

During the memorial services the students could help load, transport and set up mortuary equipment; assist with the loading and unloading of the floral tributes, drive floral vans; and, if requested by the mortuary establishment, drive a family car. All of these experiences would provide the student with the necessary activities which are needed if one is to select this area of employment as a means of a future occupational choice.

If it is feasible the student could accompany an experienced employee of the mortuary establishment in the loading and unloading of an invalid at their home and then accompany them in the ambulance to one of the local hospitals either in Huntington, Madison, Charleston or Logan, West Virginia. In this respect the student would be involved in a wide variety of hands-on activities which is needed if the students are to become successful in this area of the personal service occupational cluster.

In summation, community resources should be utilized to the fullest by the students in levels nine and ten. By providing the opportunity for hands-on activities in all of the fifteen occupational clusters, the students will become aware of a variety of occupational opportunities in their preparation for job entry. The student's role in society is determined largely by his work role, thus making hands-on activities a necessity as they prepare themselves for the world of work by improving their own competencies to the limit of their abilities and interests.

During the summer the Lincoln County Vocational-Technical Center facilities will be utilized to provide more indepth opportunity for the ninth and tenth level students. This will broaden their range of vocational experiences by increasing the time spent through actual hands-on activity experiences. Not only are the students receiving hands-on activities and experiences in actual employment environments and situations

but they are increasing their awareness and accountability for their vocational selections and successes of the future.

#### IX. Simulation

Simulation utilizes instruction to the student on how to perform different occupations within the occupational cluster. In order to stay abreast of the changes in industrial technology and to facilitate learning in career exploration, simulation is needed for all students.

The problem of assisting students to consider vocational educational opportunities is unlimited through the use of simulation within the classroom. Simulation will help the students in their educational and vocational planning; interest them in the orientation of training opportunities, and motivate them to seek information and pursue further training at higher grade levels. At this grade level the student has made or will soon make an occupational choice. They usually make it without enough understanding of the prerequisites of the occupation. The student's choice may be made in response to current interests, to parental influence, or for other reasons that will cause him to lack success in selecting his occupational goal.

Simulation will help overcome this barrier by helping the student assess his abilities and interest as he performs different roles within different clusters. The careers for which the student is best fitted would be partially determined by his successful achievement during his role in simulation.

Simulation will assist the student in: (1) discovering and understanding economic processes related to work, (2)

discovering occupational opportunities and requirements, (3) exploring work opportunities and the performance of work tasks (4) self-appraisal of vocational interests and aptitudes, (5) exploring educational and training opportunities, and (6) to utilize the techniques of simulation in developing worthwhile occupational learning experiences.

By using simulation, students will learn how to cope with the changes which they face as they move into senior high school. This will assist them in understanding how to deal with change as an ever-present aspect of life more especially in their chosen occupational area through: (1) understanding the concept of work and the human satisfaction found in work; (2) develop proper attitudes toward work and society as a whole; (3) to understand the economics of the world of work; (4) to develop a broad background of knowledge and understanding of the occupational clusters; (5) become aware of their occupational talents and capitalize on them through simulated and vicarious experiences; and (6) increase their ability to evaluate their own future vocational choices.

The teacher should take into consideration the student's perception of himself and the image of the person he would like to become as he moves through a logical sequence of simulation exercises by instilling within each student a desirable attitude toward the world of work and the dignity of man as they perform a useful service to mankind.

Well planned projects using simulation will give the students a means for self-exploration. Involvement by the student



will give him/her the opportunity to assess their abilities, determine their self-concept, and to prepare for initial entry employment. Simulation affords many opportunities for stressing the importance of personal appearance, developing responsibility, and bringing a student up to employability.

Activities utilizing simulation must be flexible enough to satisfy every student's needs. Planned activities using simulation will: (1) improve self-confidence, (2) provide a wide range of career experiences, and (3) develop a desirable approach to the process of career choices and simulated work experiences.

Simulation presents the complex realities of contemporary interactive processes by motivating students using relevant and realistic problems and inducing more efficient and active comprehension of information. Through the use of simulation students will learn to see the interrelationship of their decisions and how they affect later educational and occupational opportunities which are needed by individuals with varying sets of personal characteristics to promote a better understanding of self and their interpersonal relationships with others.

Through simulation the student will experience decision making within the constraints or work structure of particular occupations. For simulation to have a value in developing vocational knowledge, the decision making must be structured around a model of real life vocational occupations. The aim of a simulated experience is to help the student clarify his.

own values pertinent to the real world of work and to conceptualize kinds of decisions to be made while performing an occupation.

Simulation when used as a classroom learning activity will provide involvement, illustrating future factual realities, and lead to comparative discussions by the students. Simulation in the past has been used by military, by industry, and by social scientists. Simulation within the classroom is a recent innovative technique that can be used by the classroom teacher to emphasize specific behaviors in an occupational framework.

Through the use of simulation within the classroom, educators have discovered the improvement of problem-solving communication, and an interdisciplinary integration rarely achieved elsewhere.

#### X. Methods of Instruction

Although Career Exploration instruction correlated into the existing curriculum has been considered a relatively new area of vocational education in comparison with instruction in such areas as vocational home economics and vocational agriculture, the attainment of desirable instruction results is not a simple matter. Decisions concerning the kinds of instructional methodologies to be used should be based on: (1) factors conditioning ability; (2) roles of direct instructional and incidental learning; (3) different modes and/or types of presentation; (4) the role of intensified skill training in correlation with the other disciplines;

(5) the utility of occupational generalizations in correlation with the other disciplines; (6) the role of tests in determining the right or positive occupational choice for the future for the individual student; and (7) the use of guidance and counseling on an individual and group basis as a form of occupational instruction.

#### XI. Utility of Learning Generalizations

The utility of any rule for intensified training is dependent upon the degree to which it satisfies the following criteria: (1) it must have wide occupational application with very few exceptions; and (2) students' knowledge of the occupational exceptions of these rules must be known which will make a positive difference in occupational choice based upon intensified training in Career Exploration.

#### XII. Diagnosis and Evaluation

The use of diagnosis and evaluation to motivate and guide the learner in intensified training should be used to provide valuable information for accomplishing individual differences and/or occupational choices within the classroom. Two other valid functions of diagnosis and evaluation for the classroom teacher are: (1) for comparing individual and class achievement and; (2) as a dependent variable of individual comprehension as it relates to Career Exploration.

The use of proper diagnosis and evaluation should provide the classroom teacher as well as the guidance counselor the following career information: (1) students' knowledge of education required to enter their chosen vocation and/or

occupation; (2) selection of an occupation and/or vocation based on the student's portfolio after having intensified learning in Career Exploration; (3) student's realization of the inherent value of a work oriented society as it contributes to the dignity of man in the world of work; (4) the appropriateness of occupational choices in relationship to ability test scores; (5) students' knowledge of the duties that they are expected to fulfill in their chosen occupation; (6) students' knowledge concerning skills needed to function in their chosen occupations; and (7) the appropriateness of the curriculum choice made in correspondence with the goals the student has selected for later attainment whether it be in the academic or vocational areas.

### XIII. Academic and Vocational Preference

There is no set pattern for defining either academic and/or vocational interest, since there are a number of different purposes for which the term is employed. When considering students and their education, academic and vocational choices are viewed as the two most important preference areas. Most of the recent research which has contributed to the understanding of students' interests and preferences has focused on these two major topics. Research in recent years has indicated that the development of vocational selections either good or bad by the secondary students and the rationale of decisions underlying their academic and/or vocational choice are valid and predictive of their future occupational employment.

#### XIV. Desirable Attitude

The development and maintenance of desirable attitudes toward the world of work could be accomplished by: (1) showing the students that the skills learned while in high school are those most likely to be needed by him in the future; (2) providing the student with a definite and efficient reason for learning; (3) emphasizing individual and class progress; and (4) encouraging members of the class the spirit of mutual pride and cooperation in their achievement.

#### XV. Criteria For Occupational Selection

The criteria for occupational selection should be based primarily upon various elements of social utility at these grade levels: (1) frequency of the occupation; (2) difficulty of the occupation; (3) geographic spread of the occupation; (4) spread among the various occupational clusters; (5) social acceptability of the occupation; and (6) cruciality of the occupation. In career education, the wide range in student occupational knowledge differs greatly with the variability in the socio-economic levels and in the experimental background.

Once the criteria for occupational selection has been established, the critical question is what specific occupational cluster and/or what skills should be studied during the intensified training sessions. When the decision has been made concerning which occupational cluster is to be studied in conjunction with the particular course work, the next step is to decide at which area or level the skill developments are to be studied.

The major factors which should be of primary importance are:

(1) frequency of occurrence in student selection; (2) permanence of value for the student's future occupational usage; (3) difficulty of the occupational skill in relationship to the student's maturation; and (4) the extent to which occupational skill development and/or intensified skill development should be correlated to some common community and/or area occupational employment.

#### XVI. Skills and Knowledge

A persistent issue in the field of secondary education especially in the ninth and tenth levels is a growing concern for appropriate skills and knowledge needed to succeed in the world of work. The most obvious weakness is in social class cleavages, obsolescence of skills taught, and the early career decisions which have been forced upon the student at an earlier age without any prior knowledge or understanding and/or prerequisites of the different occupations from an occupational vocational standpoint. The major and chronic problem which confronts all people who are concerned with students at this grade level are the goals to be obtained by all students who are enrolled in either the ninth or tenth levels.

Based upon available evidence, skills and knowledge at these grade levels should encompass four major curricular decisions which are needed to be recognized and understood by each student as to: (1) What skills and knowledge does one need to know and/or understand about a particular occupation? (2) How many clusters should be studied and at what rate they

should be studied? (3) Should particular emphasis be placed upon one or more clusters? (4) How much time should be allotted to vocational studies or intensified training? The ultimate goal in occupational vocational training is to enable each student to have a workable and salable knowledge of a specific vocational skill which would enable them to succeed in the world of work.

Beyond a central core of high-frequency occupations, it is impossible to predict with confidence the range of skills and knowledge any particular student will need to know during his occupational career. Decisions must be made concerning the criteria to be used in selecting occupations for intensified occupational training in the curriculum. These decisions must take into consideration the student and their adult roles in chosen occupational areas.

#### XVII. Time Allotment

Time allotment per se is relatively meaningless in Career Exploration for the individual student or students unless the instructor considers such other elements as: (1) the number, and difficulty of the occupational skill being studied; (2) student aptitudes and abilities; (3) the drive and adroitness with which both the classroom teacher and the student engage in the learning process; (4) the amount and quality of instruction in other discipline areas that pertains to skill development; and (5) the efficiency of the methods and procedures being used.

## XVIII. Correlation of Subjects

Correlation of curriculum materials from the separate disciplines can be interrelated to achieve interdisciplinary cooperation and/or an integrated unit in the curriculum. Activities related to Career Exploration within each subject course may be developed and correlated with the context of the subject curriculum, contributing to a more meaningful learning experience for all students involved. This type of correlation would bridge the gap between the academic curriculum and vocational curriculum, cementing the bond thereby the desirable goal would be the future welfare of all students regardless of their vocational and/or occupational choices.

This academic-vocational correlation should: (1) provide meaningful career information in the context of specific subject matter instruction; (2) strengthen student interest in all subject areas; (3) provide a classroom atmosphere which would foster student motivation and encourage individual and group learning by discovery and/or inquiry methods; (4) encourage student investigations of personal occupational goals which would lead to greater self-understanding of the particular occupation and/or occupations; and (5) provide for different activities for student participation which would simulate work roles in the employment world.

The correlation between the different disciplines could be accomplished through: (1) periodic conferences between subject matter teachers who are teaching on the same academic



and/or grade level; (2) interdepartmental conferences between department heads regardless of the grade level; and (3) planning schedules of teachers teaching the same grade level to be more centralized so that correlation is feasible.

American studies, English, science, math, biology, algebra, typing and related courses are areas which can easily be adapted to the study of occupation. Other subject areas such as music, physical education, and home economics can also be used effectively. Occupations should be studied as a part of each subject matter area. The language arts program could easily include oral and written reports, role playing, interviews, stories, poems, riddles, and letter writing. Math and algebra should include the relationship to the worker and to the computation skills that they must have in order to obtain, perform, and function in the world of work. Art can be related to the workers in terms of drawing, painting, molding, lettering, etc., skills needed to obtain, perform and function effectively in many occupations.

Science and biology can be adapted to show the skills needed to perform successfully in technical and related occupations. Besides the suggestive methodologies, other pertinent or valuable information may be used by the students to gain deeper and more meaningful insights into the world of work and the dignity of man. The effective and conscientious classroom teacher, by using games, simulation, songs, stories, video tapes and other visual and graphic aids and the information derived from different field trips can increase the

student's critical awareness of the role that they must perform to be effective citizens of our dynamic society in the world of work.

Role playing the different activities at these grade levels is an excellent way for the classroom teacher to gain valuable outputs of student behavior in any learning situation. Role playing helps the students internalize work values into their lives. These activities are essentially an occupational preparation, job placement, and job success steps. Role playing may consist of all these activities and procedures required of an individual who is proficient in vocational skills.

Correlation should be approached in terms of what has taken place in the cluster being studied at that particular time. Students should be able to relate what they have studied during the phase that they are considering at that time. Therefore, evaluation can consist of self-appraisal by each student while the teachers may use evaluation tools to determine the degree to which the students have attained the expected competencies during the course of studying the occupational cluster. The success of the student is measured by his understandings, attitudes, appreciations and skills acquired and displayed during the unit. By doing this, each student has demonstrated his competencies within the occupational cluster. The end product of the unit should be the individual's internalization of his own worth as a productive member of society.

As America progresses in technology and students are better educated to their surrounding environment, they will

automatically challenge the relationship of the school curriculum to their predicted social and work roles. Natural relationships between basic skills and effective, satisfying work performances can be identified for the students in all subjects of the high school curriculum. A variety of methods and procedures must be used for integrating work skills into the existing curriculum.

#### XIX. Guided Study in Career Exploration

There is a growing realization among educational leaders that assigning certain work failed to result in a satisfactory occupational learning experience for many students. The main reasons for this could be due to the lack of study facilities in the home or from a lack of proper direction on the part of the classroom teacher. All too frequently, guided study on the part of the student has degenerated into mere collection of students into a study hall in which the primary role of the teacher is keeping order rather than providing valid professional career assistance to the students. The advent of new educational technology, with a strong emphasis upon individualized prescribed instruction blending the academic and vocational curriculum into a single component should be studied in developing training strategies in Career Exploration.

#### XX. Evaluation Techniques

Evaluation within the occupational cluster should be a continuous process in which the students interlink work values into their personal value systems. The classroom teacher can use several reliable methods to gain deeper

insights into what the individual student thinks about both himself and about work values generic to his social criteria. Work values should have relevance and congenial meaning to the students total personal value system. Included in the evaluation are all of those activities and procedures designed to help the students explore the personal meaning and various forms of work and the values that it sustains for them.

The process of evaluation will be an ongoing activity which only the classroom teacher can direct. The three basic criteria for an effective evaluation of student involvement should be centered around:

- (1) Structured occupational clusters or job families discussed or studied in a classroom setting.
- (2) Instruments yielding quantitative and/or qualitative measures of cognitive, psychomotor and affective characteristics of occupational clusters of job families.
- (3) Instruments returning comparative profiles of students who are involved in the exploration facets of occupational clusters.

All data compiled from student activities will be used at the teachers discretion to provide information related to the validity of learning inputs into the world of work areas.

## XXI. Methods of Evaluation

1. The observation of pupil participation in group discussion related to career orientation or to the

clusters being discussed.

2. Observation of pupil participation in activities such as:
  - A. Materials brought to class from outside sources
  - B. Role playing situations
  - C. Oral questioning and answering questions
  - D. Group discussions
  - E. Occupational debates
  - F. Pupil in interpretive exercises
  - G. Anecdotal records
  - H. Work samples of the students
3. Comparative Analysis of:
  - A. Responsibilities students had when school started or starting of an occupational cluster.
  - B. Responsibilities students now perform effectively at the closing of the school term or at the closing of an occupational cluster.
  - C. Occupations that students can now observe.
  - D. Occupations that students can now perform within a given occupational cluster.
  - E. Pre and post testing.
4.
  - A. Maturation level of the student at the beginning of the school term in terms of career orientation and development of positive attitudes toward the world of work.
  - B. Attitude and development changes in each student recognized as they evolve toward their unique

XXII. Occupational Questionnaire for In-depth Study

1. What are the future prospects for an employee in this particular occupation?
2. Is employment in this particular occupation expected to decrease or increase in the future?
3. What are the physical requirements such as height, weight, age, hearing and vision an employee should have in entering occupation?
4. What personal interest or hobbies would be helpful for the employee to have in entering this occupation?
5. What special skills are required by the employee in entering this occupation?
6. What are the legal requirements that must be fulfilled before an employee can be hired for this occupation?
7. What tools, equipment, and supplies must be furnished by the employee in this occupation?
8. What kinds of educational and/or vocational training must be taken by the employee to meet the employer standards or certification?
9. How long does it take and what does it include to meet employer standards or certification in this occupation?
10. If this is a union position, what would be the requirements that you as an employee must meet before you can join or belong to the union?
11. What provisions are made by the employer for on the job training for the employee?

12. What type of occupational experience if any must an employee have before he/she can enter this occupation or profession?
13. In this position, can an employee advance and if so, how far?
14. In preparing for this position as an employee, what related positions would you be preparing for?
15. What are the average yearly earnings for a beginning employee in this occupation?
16. What are the geographic locations of this particular employment?
17. What are the main advantages and disadvantages of this particular occupation?
18. Are fringe benefits provided for the employee by the employer in this occupation? If so, are they adequate and what are they?
19. In this occupation is the employee assured of steady work or is it a seasonal or irregular occupation?
20. In this occupation, is the employee exposed to occupational hazards and diseases contributed to the different occupations? If so, what are the hazards and diseases?
21. Why do you as a prospective employee believe that this particular occupation would be suited for you?
22. Why do you as a prospective employee believe that this particular occupation would not be suited for you?

23. What personal interest do you have that would help prepare you for this occupation?
24. What occupational requirements in this occupation, such as employment, training, etc., present for you to fulfill them?
25. What aptitudes do you have as a prospective employee in this particular occupation that would enable you to do this occupation effectively?
26. Is an apprenticeship program required in this type of occupation?
27. How long does it take to fulfill the apprenticeship program for this particular occupation?
28. Many occupations require the employee to have better than average mechanical aptitudes such as manual dexterity, finger dexterity, form perception, motor coordination, spatial perception and space perception. Does this particular occupation require any of the preceding? If so, what ones would it be hard for you to fulfill?
29. Is the salary in this particular occupation based upon incentive or merit pay? If so, what would you be expected to do before you could receive a salary increase?
30. What is the primary functions of this particular occupation?
31. What are the features concerning this occupation that appeal to you the most as a prospective employee?



32. Is a bonus or commission involved in this occupation?  
If so, how would an employee receive it?
33. In this occupation are you supervised by others or  
are you self-directed?
34. What relationship does this occupation have to other  
occupations?
35. What worthwhile contributions could I make as an  
employee in this particular occupation?
36. Can I function as an individual in this occupation?
37. How are promotions based within this occupation and  
what are the promotional opportunities for this par-  
ticular occupation?
38. Describe the main functions of this occupation?
39. In your indepth study of this particular occupation  
what resources did you find most helpful in reveal-  
ing information which helped you concerning your  
decision involving this occupation?
40. What specific educational courses should I as a pro-  
spective employee for this occupation concentrate  
upon?

XXIII. Occupational Information Facts

Student's Name \_\_\_\_\_

Job Title \_\_\_\_\_

Other Titles Used \_\_\_\_\_ Male \_\_\_\_\_ Female \_\_\_\_\_

Summary of Function of the Occupation \_\_\_\_\_  
\_\_\_\_\_

Salary Scale: Minimum \_\_\_\_\_ Maximum \_\_\_\_\_

Bonus \_\_\_\_\_ Commission \_\_\_\_\_

Working Hours: Average per week \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

Number of Nights \_\_\_\_\_ Shift Work \_\_\_\_\_

Overtime \_\_\_\_\_ Never \_\_\_\_\_ Seldom \_\_\_\_\_ Frequent \_\_\_\_\_

Education: Elementary \_\_\_\_\_ Junior High \_\_\_\_\_

Senior \_\_\_\_\_ College \_\_\_\_\_

Post Secondary \_\_\_\_\_ Technical \_\_\_\_\_

Other \_\_\_\_\_

Job Experience: Previous Experience Required? Yes \_\_\_\_\_ No \_\_\_\_\_

Acceptable Type and Length \_\_\_\_\_

Previous Jobs Normally Held \_\_\_\_\_

Types of Promotions \_\_\_\_\_

Promotional Opportunities \_\_\_\_\_

Fringe Benefits: Hospitalization? Yes \_\_\_\_\_ No \_\_\_\_\_

Adequate Coverage? Yes \_\_\_\_\_ No \_\_\_\_\_

Paid Vacation? Yes \_\_\_\_\_ No \_\_\_\_\_

Sick Leave? Yes \_\_\_\_\_ No \_\_\_\_\_

Paid Holidays? Yes \_\_\_\_\_ No \_\_\_\_\_

Life Insurance? Yes \_\_\_\_\_ No \_\_\_\_\_

Retirement Benefits? Yes \_\_\_\_\_ No \_\_\_\_\_

Educational Incentive Pay? Yes \_\_\_\_\_ No \_\_\_\_\_

Supervision: Supervision of other employees \_\_\_\_\_

Supervised by \_\_\_\_\_

Self-Directed \_\_\_\_\_

Equipment: General (Name) \_\_\_\_\_

Special (Name) \_\_\_\_\_

Company Furnish? Yes \_\_\_\_\_ No \_\_\_\_\_

You Furnish Own? Yes \_\_\_\_\_ No \_\_\_\_\_

Company pay for your Equipment and Materials?  
Yes \_\_\_\_\_ No \_\_\_\_\_

On The Job Training: Length of Time? \_\_\_\_\_

Skills Taught? \_\_\_\_\_

Transferable to Another Position?

Yes \_\_\_\_\_ No \_\_\_\_\_

Relationship to other occupations:

Within the organization? Yes \_\_\_\_\_ No \_\_\_\_\_

Outside the organization? Yes \_\_\_\_\_ No \_\_\_\_\_

Technical Knowledge: Seldom \_\_\_\_\_ Often \_\_\_\_\_ Frequent \_\_\_\_\_

Other Types of Knowledge Needed to Perform Effectively With-  
in This Particular Occupation: (Name) \_\_\_\_\_

Basic Skills Needed in This Occupation: (Name) \_\_\_\_\_

Can I Function as an Individual in This Occupation: (Describe)

What worthwhile contributions can I make in this organization  
as an individual? (Describe) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### XXIV. Personality Profile

Each individual knows himself better than anyone else. In order to obtain a personality profile of yourself and to understand yourself better as to your own strengths and weaknesses, be completely fair as you check each question. Then after you have completed the checklist study it to see where and what you can do as an individual to improve yourself as you prepare for some type of gainful employment.

	<u>Never</u>	<u>Seldom</u>	<u>Usually</u>	<u>Sometimes</u>	<u>Always</u>
1. Cheerful	_____	_____	_____	_____	_____
2. Sad	_____	_____	_____	_____	_____
3. Friendly	_____	_____	_____	_____	_____
4. Pleasant	_____	_____	_____	_____	_____
5. Sincere	_____	_____	_____	_____	_____
6. Persistent	_____	_____	_____	_____	_____
7. Alert	_____	_____	_____	_____	_____
8. Tactful	_____	_____	_____	_____	_____
9. Punctual	_____	_____	_____	_____	_____
10. Neat	_____	_____	_____	_____	_____
11. Cooperative	_____	_____	_____	_____	_____
12. Argumentative	_____	_____	_____	_____	_____
13. Courteous	_____	_____	_____	_____	_____
14. Honest	_____	_____	_____	_____	_____
15. Self-Controlled	_____	_____	_____	_____	_____
16. Thorough	_____	_____	_____	_____	_____
17. Sympathetic	_____	_____	_____	_____	_____
18. Reliable	_____	_____	_____	_____	_____

19.	Loyal	_____	_____	_____	_____	_____
20.	Helpful	_____	_____	_____	_____	_____
21.	Confident	_____	_____	_____	_____	_____
22.	Ambitious	_____	_____	_____	_____	_____
23.	Lazy	_____	_____	_____	_____	_____
24.	Trustworthy	_____	_____	_____	_____	_____
25.	Modest	_____	_____	_____	_____	_____
26.	Loud	_____	_____	_____	_____	_____
27.	Foul Mouth	_____	_____	_____	_____	_____
28.	Patient	_____	_____	_____	_____	_____
29.	Dirty	_____	_____	_____	_____	_____
30.	Accurate	_____	_____	_____	_____	_____

## XXV. Interview Techniques

- A. Regardless of how proficient a person may be in a chosen profession or occupation, many times the outcome depends upon the job interview. Each person should know established rules of decorum and effective methods for establishing rewarding relationships with the employer for a beneficial reward:
  1. Make your best appearance.
  2. The first impression is a lasting one, so make yours a good one.
  3. Keep in mind that the interview begins the second that you note your appearance before the employer.
  4. Keep the interview moving.
  5. Do not monopolize the conversation.
  6. Be respectful with the person who is doing the interview, after all you may be his future employee.
  7. Be alert, because the interview is a special kind of conversation in which the sole purpose is to exchange information which is vital to both parties.
  8. The person who is prepared for the interview has the better chance of receiving employment.
  9. When the interview has been adequately covered, summarize, and leave after thanking the person for granting you an interview.
- B. Information which would be helpful to know during the job interview:

1. Learn about the specific occupation before you go \_\_\_\_\_  
for an interview.
2. Be able to give the interviewer a concise picture  
of yourself as to abilities and interests.
3. Select the highlights about yourself that you can  
emphasize during the interview.
4. End the interview with a positive atmosphere.
5. Use correct grammar and do not damage the interview  
with slang or hip expressions.
6. Your behavior reveals inward things about you that  
you as a prospective employee can not put into words.  
So make sure that you use good manners and are court-  
eous at all times.
7. Do not smoke or have chewing tobacco in your mouth  
during an interview.
8. Do not have chewing gum in your mouth during a  
personal interview.
9. Be prepared to take a performance test if you are  
applying for a job involving skills.
10. Above all, do not argue with any type of response  
the interviewer may make during the interview.  
This may be a technique to see how much tact or  
your ability to handle difficult situations.

C. Typical interview questions which the interviewee can  
expect to be asked by the interviewer are:

1. What are your future occupational plans?
2. How do you spend most of your spare time?



3. In what type of position are you most interested?
4. What qualifications do you have that make you believe that you will be successful in this organization?
5. Can you forget your formal education and start from scratch?
6. What made you believe that you might like to work for this organization?
7. What extracurricular activities did you participate in while you were in school?
8. How do you feel about your family and friends?
9. How interested are you in sports?
10. Do you prefer any specific geographic location? Why?
11. How did you rank in your graduating class in high school? In vocational-technical school? college? or other types of schools?
12. Can you take instructions without having your feelings upset?
13. What kind of boss or supervisor do you prefer?
14. How much money do you hope to be earning per year by the time you are thirty-five?
15. What interests you about our particular products or our types of services?
16. Do you live with your parents? Which of your parents has had the most profound influence on you?
17. Why do you think you would like the particular job you are applying for?
18. What is your parent's occupation?

19. How did teachers treat you in school?
20. Can you get recommendations from reliable people?
21. Tell me about your home life.
22. What type of occupations do your best friends have?
23. Do you prefer working with others or by yourself?
24. Are you looking for a permanent or temporary employment?
25. Do you have any debts?
26. Have you saved any money?
27. Do you demand attention?
28. How do you usually spend Sunday?
29. What do you know about opportunities in the area  
in which you are trained or qualified?
30. What types of books have you read lately?
31. What type of people seem to get on your nerves?
32. What are your special aptitudes or abilities?
33. Do you like to travel?
34. To what extent do you use liquor?
35. How do you feel about overtime work?
36. Will you work on Sundays?
37. Are you interested in research?
38. What are the disadvantages of your chosen vocation?
39. Do you enjoy sports as a participant and as an  
observer?
40. Have you had any serious illness or injury?
41. Will you define cooperation?
42. Do you like routine work?
43. Do you believe you have done the best scholastic  
work of which you are capable?

44. Have you ever had any difficulty getting along with fellow students and faculty members?
  45. What size city do you prefer to live in?
  46. Have you ever been arrested?
  47. What are your major weaknesses?
  48. What are your major strengths?
  49. What are your ideas on salary?
- D. Why interviewees fail to sell themselves during the interview are:
1. Too interested or eager in the starting salary.
  2. Too uncertain on wants in starting a new job.
  3. Too uncertain on long-range goals.
  4. Failure to investigate the company or organization before the interview.
  5. Poor expression both orally and written.
  6. Inability to have faith in themselves.
  7. Too much expected from the organization too fast.
  8. Too much emphasis placed on security as compared to future opportunity.
- E. Why interviewees are frequently rejected for employment:
1. Poor personal appearance
  2. Overbearing--Know it all
  3. Lack of personal vitality
  4. Lack of tact
  5. Lack of mental and social maturity
  6. Lack of courtesy--Ill mannered
  7. Marked dislike for school or former types of work

8. Unwilling to start at the bottom and work way to the top
9. Failure to participate in activities
10. Poor scholastic record
11. Limp, fishy hand-shake
12. Indecision
13. Cynical
14. Low moral standards
15. Lazy
16. Asks no questions about the employment
17. Narrow interest
18. Prejudice
19. Lack of knowledge in the field in which they have specialized in
20. No personal interest in the organization
21. Sloppy or messy application blank
22. Parents with whom interviewee lives make their decisions.
23. No interest in community activities
24. Late to interview without good reason
25. Unwillingness of interviewee to go where we send him
26. Inability to express himself clearly
27. Lack of occupational goal--poor planning
28. Little sense of humor
29. Radical ideas
30. Lack of vitality <sup>1</sup>

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<sup>1</sup>Exerpts for Section XXV Interview Techniques, were inspired by How To Find and Apply For A Job. South Western Publishing Company, 1960.

XXVI. Personal Inventory

John Doe

August 10, 1972

I. Personal Data

Name \_\_\_\_\_ Telephone \_\_\_\_\_

Address \_\_\_\_\_ Social Security \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
Zip \_\_\_\_\_

Date of Birth--Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_ Age \_\_\_\_\_

Place of Birth \_\_\_\_\_

Present Height \_\_\_\_\_ Present Weight \_\_\_\_\_

Physical Handicaps \_\_\_\_\_

Days Ill During Past Year \_\_\_\_\_

Nature of Illness \_\_\_\_\_

Father's Full Name \_\_\_\_\_

Mother's Full Name (Maiden Name Included) \_\_\_\_\_

Father's Age \_\_\_\_\_ Mother's Age \_\_\_\_\_

Number of Brothers \_\_\_\_\_ Number of Sisters \_\_\_\_\_

Occupations of Brothers and Sisters \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Father's Occupation \_\_\_\_\_

Mother's Occupation \_\_\_\_\_

Father's Education \_\_\_\_\_

Mother's Education \_\_\_\_\_

Your Marital Status \_\_\_\_\_

Hobbies \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Newspaper Read Regularly \_\_\_\_\_

Magazines read Regularly \_\_\_\_\_

Smoke---(Yes) \_\_\_\_\_ (No) \_\_\_\_\_ Drink Alcoholic Liquors--(Yes) \_\_\_\_\_

(No) \_\_\_\_\_ (Moderately) \_\_\_\_\_ (Socially) \_\_\_\_\_

Church Affiliation----- (Yes) \_\_\_\_\_ (No) \_\_\_\_\_

Church Name \_\_\_\_\_

Church Pastor \_\_\_\_\_

Personal Assets \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Personal Hindrances \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Ambition \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## II. Education

High School \_\_\_\_\_

Address \_\_\_\_\_

Graduated----- (Yes) \_\_\_\_\_ (No) \_\_\_\_\_

Date Graduated \_\_\_\_\_

Rank in Class \_\_\_\_\_

If you did not graduate from high school explain why. \_\_\_\_\_

Course Taken \_\_\_\_\_ With Major Emphasis \_\_\_\_\_

Subjects Studied \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subject in which poorest work was done \_\_\_\_\_

Subject in which best work was done \_\_\_\_\_

Honors \_\_\_\_\_

Student activities while in high school \_\_\_\_\_

Skills \_\_\_\_\_

### III. Experience

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### IV. References

1. Name \_\_\_\_\_  
Position \_\_\_\_\_  
Address \_\_\_\_\_
2. Name \_\_\_\_\_  
Position \_\_\_\_\_  
Address \_\_\_\_\_
3. Name \_\_\_\_\_  
Position \_\_\_\_\_  
Address \_\_\_\_\_
4. Name \_\_\_\_\_  
Position \_\_\_\_\_  
Address \_\_\_\_\_
5. Name \_\_\_\_\_  
Position \_\_\_\_\_  
Address \_\_\_\_\_



XXVII. Letter of Application

000 Main Street  
Hamlin, West Virginia 25523  
August 10, 1972

Mr. J. J. Doe, Personnel Director  
John Doe Company  
1088 Washington Avenue  
Anywhere, State 00000

Dear Mr. Doe:

I am interested in the possibility of obtaining a position with John Doe Company. Because of my special vocational high school and work experience, I believe that I have the ability to fill the position of secretary for which you advertised in yesterday's News Bulletin.

You will note on the resume sheet that my grades were above average at the Lincoln County Vocational-Technical Center, and I also worked part-time as a general clerk at the any place of anywhere. The office manager has given me permission to use her name as a reference. She and the others I have included on the data sheet will be glad to help you judge my activities and personality if you wish to contact them.

I shall appreciate a personal interview to talk with you further about my qualifications.

Sincerely yours,

Iwanta Goodjob

Resume

Resume

Iwanta Goodjob

August 10, 1972

Personal Data

Age:  
Height:  
Date of Birth:  
Weight:

Health Status:  
Telephone:  
Marital Status:  
Address:

Education:

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Experience:

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---

References (By Permission):

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XXVIII. Employment Application

## APPLICATION FOR EMPLOYMENT

(Applicants should complete in their own handwriting using pencil or pen)

## GENERAL INFORMATION

Name						Date	
Street Address						Phone Number	
City						Social Security Number	
Zone				State			
Case of an Emergency Notify				Address		Phone Number	
Date of Birth		Sex		Age		Height	
						Weight	
						Type work done	
Any defects in sight, hearing, or speech?			How much time have you lost through illness in the past two years?			Nature of illness	
Give names of any members in our organization with whom you are acquainted							
Are you related to any of these people?			If so, to whom?				
Marital status		No. of minor Children		Other dependents		Who referred you to us for employment?	
If married, is your spouse working?		If so, where?		Do you have any other source of income?			
Do you live with parents? ( )		Board? ( )		Rent? ( )		Own home? ( )	
Make and model of car owned						Father's occupation	
Insurance carried		Life (amt.)		Car Liability (amt.)		Health & Accident (Type)	
Have you ever served in the United States Armed Forces?			Rank and branch of service			Date of induction	
Date of discharge		Type of discharge			Primary service duties		
Are you now employed?			If so, where?				

## EDUCATION

High School attended		City & State		Year Graduated	
Business School attended		City & State		Number of months attended	
College or University attended		City & State		Year graduated	
				Degree	
Business subjects studied while in school		HIGH SCHOOL			
		BUSINESS COLLEGE			
		COLLEGE			
Are you studying now?		If so, where?		Where?	
Other special training			System of shorthand studied		
In the space to the right indicate your present speed in shorthand and typing, if you have these skills. Place an (X) after the office machines you can operate		Shorthand		Typing	
		Bilting Machine		Bookkeeping Machine	
		Addressograph		Calculator	
		Comptometer		Key Punch	
		Verifier		IBM Tabulator	
				Dictaphone	
				Mimeograph	
				PBX Board	
				Adding Machine	
				Other	

## EXPERIENCE AND REFERENCES

Business Experience & References ( Show last position first )

From	To	Period		Name of Company	City & State	Person to whom you reported
		Yrs.	Mos.			

### Business Experience and References ( Continued )

GIVE TITLE AND NATURE OF YOUR WORK	Monthly Earnings	Why did you leave?

Character References: Do not refer to previous employers or relatives.

NAME	ADDRESS	OCCUPATION

\_\_\_\_\_  
Signature of Applicant

## APPLICATION FOR EMPLOYMENT

Date \_\_\_\_\_  
MONTH DAY YEARMr. \_\_\_\_\_  
Mrs. \_\_\_\_\_  
Miss \_\_\_\_\_  
FIRST NAME MIDDLE INITIAL LAST NAME  
Maiden name \_\_\_\_\_

Position desired \_\_\_\_\_ Salary expected \_\_\_\_\_

When available \_\_\_\_\_ Previously applied for work here? Yes \_\_\_\_\_ No \_\_\_\_\_

Previously employed by us? Yes \_\_\_\_\_ No \_\_\_\_\_ Family or friends employed by us? Yes \_\_\_\_\_ No \_\_\_\_\_

How or by whom referred to us? \_\_\_\_\_

Your address \_\_\_\_\_  
NUMBER STREET CITY STATE ZIP CODE

How long at above address? \_\_\_\_\_ Telephone No. \_\_\_\_\_

Date of birth \_\_\_\_\_ Social Security No. \_\_\_\_\_  
MONTH DAY YEAR

U.S. citizen? Yes \_\_\_\_\_ No \_\_\_\_\_ If not, visa type and number \_\_\_\_\_

Marital status: Single \_\_\_\_\_ Married \_\_\_\_\_ Separated \_\_\_\_\_ Divorced \_\_\_\_\_ Widowed \_\_\_\_\_

No. of dependents \_\_\_\_\_ Relationship(s) \_\_\_\_\_ Children's ages \_\_\_\_\_

In emergency, notify \_\_\_\_\_  
NAME ADDRESS TELEPHONE RELATIONSHIP

Any physical defects? \_\_\_\_\_ Time lost due to illness in last 3 years \_\_\_\_\_

Are you now under a doctor's care? Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, explain \_\_\_\_\_

Has your salary ever been attached or garnisheed? Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, explain \_\_\_\_\_

Were you ever arrested (other than traffic)? Yes \_\_\_\_\_ No \_\_\_\_\_ If Yes, outcome of arrest \_\_\_\_\_

Typing speed \_\_\_\_\_ Steno speed \_\_\_\_\_ Other skills \_\_\_\_\_

## EDUCATION

NAME OF SCHOOL	ADDRESS (IN FULL)	DATES		GRADUATE?		TYPE OF DEGREE OR DIPLOMA	MAJOR SUBJECT FIELD
		FROM	TO	YES	NO		
HIGH SCHOOL(S)							
COLLEGE(S)							
OTHER							

Did you ever serve in the U.S. armed forces? Yes\_\_\_\_\_ No\_\_\_\_\_

Service \_\_\_\_\_  
FROM TO BRANCH RANK PRIMARY DUTY TYPE DISCHARGE  
Selective Service classification \_\_\_\_\_ Reserve status \_\_\_\_\_

### EMPLOYMENT

Please list present or most recent position first:

NAME OF COMPANY OR ORGANIZATION	FROM / To / MO. YR. MO. YR.	YOUR TITLE AND DUTIES
ADDRESS		
CITY STATE	SUPERVISOR'S NAME	REASON FOR LEAVING
TYPE OF BUSINESS	BUSINESS PHONE	

NAME OF COMPANY OR ORGANIZATION	FROM / To / MO. YR. MO. YR.	YOUR TITLE AND DUTIES
ADDRESS		
CITY STATE	SUPERVISOR'S NAME	REASON FOR LEAVING
TYPE OF BUSINESS	BUSINESS PHONE	

NAME OF COMPANY OR ORGANIZATION	FROM / To / MO. YR. MO. YR.	YOUR TITLE AND DUTIES
ADDRESS		
CITY STATE	SUPERVISOR'S NAME	REASON FOR LEAVING
TYPE OF BUSINESS	BUSINESS PHONE	

## XXIX. Field Trips

Students in the ninth and tenth levels are anxious to explore the different types of occupations and the different types of positions that show promise of a future employment for them. They are curious at this age level, not only about different occupations, but, about the need for concrete planning concerning their future welfare in the occupational world. Field trips to an occupational concern presents a first hand opportunity for the students to react and interreact to real work situations. Field trips provide opportunities to observe the occupational market place of employee-employer and to speculate the fulfillment of roles in providing goods and services to mankind.

The importance of career exploration cannot be over emphasized in the ninth and tenth levels, since each student must have a foundation for success in their chosen occupation. Field trips are an asset to the students in positive occupational foundations providing a stepping stone for later development in their occupational activities.

The occupational site should be discussed before hand and, if possible, audio-visual aids explored giving some accurate background knowledge about the operations that are performed. Different types of employees that they may encounter should be described so that the students will have some knowledge about the operations, responsibilities, and activities of personnel in the establishment to be visited.

While on the actual field trip, students should be given an opportunity to examine, question, and explore the facilities and work opportunities that exist within that particular situation. This will reinforce positive attitudes for some of the students about these particular occupations. For others it will reinforce their attitudes that they are not suited for these types of occupations, suggesting that they might find a higher level of satisfaction in some other type of employment.

Discussing and explaining different types of occupations or career opportunities within the classroom setting will be a prime source of information to the student, but on-the-spot observation of an occupation shows promise of more relevant information.

Prior to a field trip, the students should have a clear understanding of why they are taking the trip. This usually serves to thwart unforeseeable conclusions that may cause the student to question the activities of the different types of occupations observed during the field trip.

A. Some purposes of a field trip are:

1. Help each student develop a positive attitude toward the many different types of occupations that are performed in a certain occupational cluster and to understand that the clusters are often interrelated within an occupational cluster.



2. Help each student develop positive traits for observing the different types of occupations being performed by the employees.
3. Field trips gives the students a first hand opportunity to observe and talk with employees while they are performing in real occupational work situations.
4. Field trips gives the students incentive to talk with the different speakers as they perform their particular occupations about their training, aptitudes, and requirements needed to perform that particular occupation effectively.
5. Students should be taught to formulate and ask questions appropriate to their observations and answerable by employees.

B. Certain classroom preparations and procedures should be made before finalizing a field trip.

1. The principal should be consulted by the teacher or committee of students to obtain his permission for the field trip.
2. The classroom teacher and/or a committee of students should correspond by letter with the manager of the business or industry and secure their permission for a class visit.
  - a. Arrange a time suitable to the organization for the class to visit.

- b. Determine the major type of occupations that the students could observe while they are on the tour.
  - c. Discuss background information that the students should know to make their tour more meaningful as prospective employees of this organization or others with similiar occupational employment.
3. Make plans for transportation and organizational policies.
- a. What kind?
  - b. Who will provide it?
  - c. How long will it take?
  - d. Will there be a conflict concerning other classes that may be missed because of the field trip?
  - e. What will the field trip cost the students?
  - f. Investigate company policies concerning what the students need to wear during the tour of their facilities.
  - g. What time does the organization expect the students to arrive for the tour and about how long will the tour last.
4. The classroom teacher should obtain a signed statement from the parents of each child giving permission to leave school for the sole purpose of making a field trip with the classroom teacher for educational purposes.

C. The classroom teacher and students should plan for activities in the classroom that would coincide with the field trip.

Some of the activities that could be planned are:

1. Stories concerning major occupations in the cluster being studied.
2. Bibliographies of people who have made an outstanding contribution in this particular area.
3. Mural display showing different workers within this particular occupational cluster.
4. Role playing the different types of occupations that they would expect to observe being performed while on a field trip. After the field trip compare role playing experiences with actual observations.
5. Use different types of audio-visual materials to illustrate this particular occupational cluster.
6. Class discussion in which each student in the class would have inputs to contribute concerning the planned field trip.
7. Student committee should collect career information concerning the occupational cluster and disseminate this information with each member of the class.

This type of information could be general and if a student was interested he or she could do an indepth study concerning the occupational cluster.

- a. Kind of workers
- b. Working conditions
- c. Training of workers
- d. Educational requirements
- e. Etc.

8. Safety precautions should be discussed by the classroom teacher and the students prior to the field trip.

- a. Traveling to and from the occupational site where the field trip is to take place.
- b. Students should understand before hand that most organizations are proud of their safety record; therefore they should be very careful and observe safety regulations while they are on the organization premises.

### XXX. Types of Educational Institutions

#### A. Secondary Schools

Many school systems have secondary programs designed to give the students a salable skill upon completion of the program. When this type of program is available to the students, it becomes a part of their high school learning experience. Generally there is no special certificate given for completion of these programs other than a high school diploma. The specific courses would be listed on a high school transcript of the student. Some students

participating in these program areas will attend college or other post-secondary institutions using the obtained skills for a part-time job to provide financial assistance for going to college.

B. Vocational-Technical Schools or Centers

✓ Vocational-Technical Schools or Centers are schools with programs designed to train students for specific job areas. General academic courses usually are not offered. Subjects such as English and mathematics are adapted and/or correlated to the vocational and technical goals of the students.

Courses of instruction given at the Vocational-Technical Centers are not recognized for college credit although certificates are given upon completion of a specific course of instruction.

C. Junior Colleges

Junior colleges are two-year schools that offer an associate degree. Most junior colleges offer some terminal programs that prepare a student to enter the world of work upon completion of the course of study. Some of these program areas are drafting, photography, auto mechanics, office practice, and secretarial. Most junior colleges have a liberal arts program that prepares a student for entry as a junior into a college or university after having successfully completed two full years of study.

#### D. Colleges

Colleges are schools established to offer course work leading to a bachelor's degree. Colleges are generally authorized by the State Board of Education or Board of Higher Education to grant degrees in such fields as English, history, art, journalism, foreign language, mathematics, biology, political science and other major fields of study.

Some colleges have special one and two year programs in such fields as business, clerical, business secretarial, and commercial art. The credits or hours given for these courses may constitute regular college and could be applied to a degree program.

Colleges are usually supported and regulated by the state, a religious organization, or occasionally by a private non-religious organization.

Colleges have specific entrance requirements listed in their current catalogs. The value of the diploma received by any college is determined by the accreditation of the college.

#### E. Universities

Universities are composites consisting of two or more colleges and offering a number of degrees on the undergraduate and graduate levels.

These schools are usually supported and regulated by the State, a religious organization, or occasionally by a private non-religious organization.

All universities whether private or state owned have specific entrance requirements which are listed in their current catalogs. The value of the diploma given by a university is determined by the reputation of the university in the field of study from which the diploma is received.

#### F. Technical Institutes

Most technical institutes are a part of a state university system and/or have the type of entrance requirements similar to that of a college or university.

Most of the programs are two-year programs offering an associate degree in the area of: aeronautical construction, drafting design, electronics, fire protection, petroleum and mining. Technical institutes are designed for the student who prefers to major in applied science rather than behavioral science.

#### G. Professional Schools

Many of these schools are associated with colleges and/or universities although some are private or run by a non-profit organization. Most of the professional schools are generally on a graduate level and provide training for specific professions. Some of the professional schools' training includes such program areas as dental, medical, chiropractic, osteopathy, nursing, law, mortuary and religion.

Many of the professional schools are associated with colleges and/or universities. Professional schools are

most often regulated by the appropriate profession that they are training the person for.

#### H. Various Private Schools

Almost every type of occupation has schools that are organized to train students for a particular program area. Program areas in such schools may include business, art, cosmetology, barbering, welding, electronic, data processing, drafting, modeling, air line service, civil service, mortuary science, and meat cutting.

It is generally left to the individual student to determine if such a school is worthwhile and whether or not the diploma receives by such a school has merit or not.

Students and parents or guardians are urged to thoroughly investigate curriculum offerings, financial cost, and obligations of this type of private schools. The specific occupations for which the student will be qualified to fulfill after completing the course should be studied before signing a contract.

Many private schools are above reproach yet, there are many fly-by-night operations that take undue advantage of students and parents or guardians who are not aware of such operations.

#### XXXI. The Role of Counseling and Guidance in Career Exploration

In the ninth and tenth grade systematic and intensive career development is especially crucial to students. It is at this point that large numbers of students physically



sever their relationship with the formal education setting, cutting off the possibility of gaining salable skills.

By this time, students are also more likely to be able to accurately evaluate their interests, abilities, and aptitudes. They are more psychologically receptive to being guided by the counselor in assessing their skills, competencies, duties, functions and occupational requirements.

Because of the high drop-out rate at this level, accurate information should be given to all students relating entry-level occupational accessing to educational deficiencies or specific levels of work experience required.

Relevant, creative career education and guidance programs at this level may be one of the principal means of preventing dropouts. The high school has a duty to provide systematic vocational guidance to all its students, whether they are headed for college, a job, or post high school technical training. The counselor has a vital role to play in that process.

In planning his career, the student must have a clear picture of his own characteristics. He should include:

1. His personality, values, life style, abilities, interests, aptitudes, strengths, weaknesses.
2. His environmental situation.
3. Trends in the economy and the occupational and social structure.
4. Chance factors such as sickness, injury, unforeseen opportunities, etc.

A. Characteristics of the Individual Important in Career Selection

1. Physical Characteristics

- (a) Age, weight, height
- (b) Physical handicaps, if any
- (c) Health and energy level
- (d) Voice, personality, confidence, etc.
- (e) Degree of emotional maturity

2. Personal Qualities

- (a) Quality of social interaction with others
- (b) General temperament
- (c) Self Concept

(d) Values, goals, ambitions

(e) Degree of emotional maturity

3. Mental Abilities

4. Interests

5. Aptitudes

6. School and nonschool experience

- (a) Extent of general education and specialized training; quality of achievement
- (b) Participation in extracurricular activities in school
- (c) Nature of and success in part time or full time jobs.
- (d) Special skills
- (e) Hobbies

(f) Relations with family and persons outside the family.

(g) Participation in nonschool social groups

7. Family Background

(a) Family relations

(b) Ambitions of parents for the child

(c) Cultural background

(d) Socio-economic status

(e) Financial status

B. Important Items in Analyzing Occupations

1. What is the nature of the work in this occupation?

Specifically, what are the activities, duties, and responsibilities of those engaged in it?

2. What special abilities are required?

3. What are the educational prerequisites for the occupation? Does the occupation require grade school, high school, technical school, or college training? How many years are required for special training? How much will it cost? Are there specific qualifications for securing this training?

4. How can this occupation be entered? Is there an examination? Who conducts it? Are there any special clearinghouses or agencies to handle placement? How much is charges for this service?

5. Are there any restrictions to entering this occupation? What are they? Are they bases on race, religion,

nationality, background, intellectual abilities, formal education, physical factor, or personal appearance?

6. What are the working conditions? What are the regular hours of work? Is there much overtime? Are there any particular busy seasons? Are there physical hazards or mental strain? In what form is the compensation-- piece rate, hourly wage, salary, or commissions? Does one work alone? Is the work routine?
7. What has been the general trend of employment in the occupation? Is the occupation growing or shrinking in importance? Does the demand for employees vary seasonally? Is there a large turnover in employment? In what areas of the country is the demand for workers heaviest? What is the demand in the local community and nearby areas?
8. What is the average income, and what is the income range in the occupation? What is the typical starting wage in salary? How much job security does the occupation offer? Is there a pension or retirement plan? What are the chances for promotion? How are promotions obtained? Does a job in this occupation lead to better positions in related occupations?
9. In general, how can this occupation be rated as a life career? How does it contribute to social progress?  
What effect does it have on the workers personal life?

C. Techniques or Methods for Counselors in Presenting Occupational Information

1. Individual Interviews--If a student is interested in information about an occupation that is of little concern to others, or if he has a personal problem related to an occupation perhaps the counselor would discuss the matter individually or privately with him.
2. Group Contacts--This would include classroom sessions to serve the maximum number of students in disseminating occupational information. Orientation to occupational information, including introduction to ideas and sources or materials can be done effectively through group techniques including assemblies, classes, and small groups.

D. Disseminating Information Through Interviews

Four crucial questions should be considered in using occupational information in counseling interviews.

1. What are the conditions under which occupational information is used in the counseling interview? To make such conditions specific, consider the high school student who has shown keen interest in preparing to be a civil engineer--should the counselor direct the student immediately to the source of information on this occupation? Or should he wait until the student has learned more about his basic abilities or potentialities. Perhaps the student has a problem in the area of personality; if so, his vocational situation may be secondary, at least temporarily. Perhaps the solution would be to lead the student to explore particular sources of information in order to keep alive his vocational interest,

the other to help him develop keen insight into his situation and make a more realistic approach of it. As a result, he is likely to become more able to deal with his vocational problem.

2. How much overtime does the counselor give the counselee in his use of occupational information? As a counselee learns to be more independent, the counselor adjusts his level of help to the counselee's readiness for self-sufficient research.
3. How does the counselor determine which occupational information materials are appropriate for the counselee? The counselor must be aware of the counselee's reading level, his experience and background, and his attitude toward career planning. Also, consideration must be given to the type of career literature most suitable for the student's level of interest, abilities and maturity.
4. How does the counselor evaluate the use of occupational information in counseling interviews?

The counselor should concern himself with the degree of his effectiveness. What changes should be made in his counseling procedures or in the types of subject matter on occupations to provide counseling with appropriate alternatives.

#### E. Group Counseling and Guidance

In assemblies, classroom groups, or in small group guidance the counselor may effectively deal with:

1. Orientation to occupations.
2. General introduction to the basic sources of occupational materials.
3. Occupational trends nationally, statewide, and locally.
4. Development of the concept of occupational selection.
5. The relationship of personality to occupational selection.
6. Information about areas of work in specific occupations of particular significance to students.

F. The Career Conference

Representatives of various vocations can be used for assemblies and small group sessions with students. Options for this type of conference might be anywhere from one week of periodic conferences, panels and small buzz sessions with workers. Occupational representatives could speak to a large assembly and then be available for further dialogue with interested students.

G. College Representatives

College representatives may meet with interested students on the same basis used in the career conference. Discussions could focus on the school's educational program, extracurricular activities, placement services, tuition and other costs.

H. Other Methods

1. Posters and Displays--Counselor could work with teachers and students to construct and display posters or other display materials concerning the world of work.

2. Bulletin Boards utilizing charts, announcements of special lectures on careers.
3. Films presenting occupational information.
4. Field trips to various businesses, industrial or governmental concerns.
5. Correlation With Subject Matter Teaching--Each subject matter teacher should present occupational information related to his field of specialization, pointing out ways in which his subject helps prepare students for jobs.
6. Clubs for Students--Counselors can aid students to form clubs built upon student interest in occupations as they are related to specific subjects.
7. Student Career Notebook--Students can be encouraged to begin and keep a notebook concerning occupations in which he is most interested as well as information about himself.
  - (a) General occupational information
  - (b) Information about occupations of special interest
  - (c) Additional required occupational information
  - (d) Student academic record
  - (e) Performance on standardized aptitude and achievement tests
  - (f) Performances for occupational areas
  - (g) Career goal
  - (h) Educational plans
  - (i) Personal characteristics
  - (j) Financial situation



## I. Testing

Students at the ninth and tenth grade level should have a systematic, comprehensive program of interest, ability, and aptitude assessment so that they can have reliable alternatives in selecting specific vocational courses or preparation for college or post high school technical training.

## J. Self Awareness and Personal Growth Dimensions

In groups, or individually, areas such as the following should be systematically explored collectively by counselors, teachers, and students:

1. A developing and strengthened sense of the importance of useful work in our society, and a corresponding respect for all those who perform such work.
2. The necessity for effective cooperation, collaboration, and communications with others in any meaningful human endeavor, whether work or non-work, with particular attention to factors facilitating or hindering teamwork and task completion.
3. A recognition of the diverse life styles and values associated with the many different occupational fields in our society, and an increased ability to successfully relate one's emerging sense of self-identity to compatible and nonalienating work or occupational roles.
4. The need for effective problem solving procedures, sound planning and personal involvement in the

decision making process of our society, and in our role as a part of a work unit.

5. Increased flexibility and perspective concerning job and work role obsolescences, with a corresponding psychic receptivity to the need for effective response to the psychologically aspects of technological modification. Prior years have left many workers trapped in occupations unable to break away from the rigidity imposed by years of narrowly constrained attitudes and psycho-motor reflexes. As their jobs were drastically altered or eliminated by automation, many of these individuals dropped out of the work force.
6. The increased ability to understand and accept the validity of a variety of life styles, values, and subcultures without hostility or alienation.

XXXII. Resource Materials

- |                                   |                             |
|-----------------------------------|-----------------------------|
| 1. Films                          | 26. Slide Projector         |
| 2. Records                        | 27. Overhead Projector      |
| 3. Books                          | 28. 16 MM Camera            |
| 4. Magazines                      | 29. Tape Recorder           |
| 5. Maps                           | 30. Opaque Projector        |
| 6. Transparencies                 | 31. Filmstrip Projector     |
| 7. Documentaries                  | 32. Charts                  |
| 8. Autobiographies                | 33. Graphs                  |
| 9. Art Supplies                   | 34. Bulletin Boards         |
| 10. Film Strips                   | 35. Television              |
| 11. Tapes                         | 36. Radio                   |
| 12. Cassettes                     | 37. Easels                  |
| 13. Pamphlets                     | 38. Flannel Boards          |
| 14. Pictures                      | 39. Songs                   |
| 15. Slides                        | 40. Ballads                 |
| 16. Bibliographies                | 41. Simulation Kits         |
| 17. Interview Technique Materials | 42. Poems                   |
| 18. Career Files                  | 43. Encyclopedias           |
| 19. Card Files                    | 44. Briefs                  |
| 20. Job Application Forms         | 45. Globes                  |
| 21. Newspapers                    | 46. Industrial Publications |
| 22. Role Playing Techniques       |                             |
| 23. Tests                         | 47. D. O. T.                |
| 24. Games                         | 48. Murals                  |
| 25. Research Projects             | 49. Ticker Tapes            |

### XXXIII. Criteria of Different Occupational Levels

#### Professional

1. Important Function
2. Independent
3. Varied Responsibility
4. Deals with policy making and interpretation
5. High level of education where relevant

#### Semi-Professional and Managerial

1. Some Independence
2. Varied Responsibility
3. Policy Interpretation
4. High level of education where relevant

#### Technical and Skilled

1. Some variation in responsibility
2. Some policy interpretation and decision making
3. Special training, apprenticeship and/or experience
4. Knowledgeable in a particular skill or area

#### Semi-Skilled

1. Little or no responsibility
2. Some special training, apprenticeship and/or experience

#### Unskilled

1. No special training and/or skill

XXXIV. Occupational Clusters

1. Office Occupations
2. Marketing and Distribution Occupations
3. Consumer and Homemaking Occupations
4. Marine Science Occupations
5. Transportation Occupations
6. Agri-business and Natural Resources Occupations
7. Construction Occupations
8. Manufacturing Occupations
9. Public Service Occupations
10. Health Occupations
11. Fine Arts and Humanities Occupations
12. Environmental Occupations
13. Communication and Media Occupations
14. Hospitality and Recreation Occupations
15. Personal Service Occupations

Many academic disciplines may make a major contribution toward success in an occupation; most disciplines within the school system are important in contributing to the occupational success of the student. Each discipline in its own way contributes to the occupation, although depending upon the occupation, some disciplines will contribute more than others. Therefore the correlation of all the disciplines should be utilized where feasible to aid the student in acquiring competencies appropriate to his projected adult societal roles.

Office Occupational Cluster
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<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Office Machine Operator	Same	Office Machines
Clerical	Same	General Business/ Filing/Office Machines/Office Practice/Typing
Shipping Clerk	Same	General Business/ Filing
Receiving Clerk	Same	General Business/ Filing
Machine Clerk	Same	General Business/ Filing/Office Machines
Messenger	Same	General Business/ Filing
Typist	Same	Typing/Shorthand
Secretary	Same	Shorthand/Typing/ Filing/Office Practice/Office Machines
Receptionist	Same	Shorthand/Typing/ Filing/Office Practice/Office Machines
Stenographer	Same	Shorthand/Typing/ Filing
Key Punch Operator	Same	Office Machines/ Filing/Data Processing
Programmer	Same	Office Machines/ Filing/Data Processing
Console Operator	Same	Office Machines/ Filing/Data Processing
Office Machine Serviceman	Same	Office Machines

Machine Assembler (Office)	Same	Office Machines
Machine Technician (Office)	Same	Office Machines
Managerial Positions	Topics Personnel Supervisor Manager	Relate to any Discipline
Postal Clerk	Same	Office Practice
Telephone Operator	Same	Office Practice
Auditor	Same	Bookkeeping/ Accounting/Typing
Statistician	Same	Accounting/Book- keeping/Typing Mathematics/Algebra
Auditor	Same	Accounting/Economics Algebra/Bookkeeping/ Typing
Cashier	Same	Bookkeeping/ General Business/ Accounting
Court Reporter	Same	Shorthand/English/ Typing
Estimator	Same	General Business/ Typing/Filing
Copy Writer	Same	Typing
Sorter	Same	General Business/ Filing
Marker	Same	General Business/ Filing
Addresser	Same	General Business/ Filing/Typing
Office Boy/Girl	Same	General Business
Real Estate Appraisers	Same	General Business/ Typing/Accounting/ Bookkeeping
Checkers	Same	Office Machines/ Office Practice

154



Correspondence Clerk	Same	Typing/Filing/ Office Practice/ Office Machines
File Clerk	Same	Office Practice/ Filing/Typing/ Office Machines
Stock Clerk	Same	General Business/ Filing
Credit Collector	Same	Bookkeeping/Typing
Credit Worker	Same	General Business/ Typing/Bookkeeper
Duplicating Machine Operator	Same	Office Machines

Marketing and Distribution
Occupational Cluster

<u>Occupation</u>	<u>In-depth Study</u>	<u>Discipline</u>
Bank President	Same	Accounting/Business Law
Administrator	Topics City College Hospital Estate Etc.	Relate to any Discipline According to Topic
Public Relations	Same	Office Practice/ Sociology
Store Manager	Same/Type	Office Practice/ Accounting and Disciplines related to type of Manage- ment, e.g., Drug Store Manager-Health/ Science/Biology
Fashion Designer	Same	Office Practice/ Art/Home Economics/ or other disciplines according to interest of student
Newspaper Reporter	Same	Business Law/ Journalism/Typing/ English/Business Law/Shorthand
Advertising Account	Same	Typing/Bookkeeping/ Art/Etc
Buyers	Same/Type	Accounting/Book- keeping/Typing/ Filing/Business Law and disciplines related to the types of Business they are buying for

Model	Same	Home Economics/ Physical Education/ General Business
Delivery Boy	Same	General Business/ Geography
Routeman	Same	General Business/ Geography
Packer	Same	General Business/ Filing
Guide	Same	General Business/ History

Consumer and Homemaking Occupational Cluster
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<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Nutritionist	Same	Home Economics/ Chemistry Health/ Science/Typing/ Chemistry/Biology/ and other related disciplines
Dietician	Same	Home Economics/ Typing/Science/ Algebra/Health/ Chemistry/ Biology/ and other related disciplines
Executive Housekeeper	Same	Home Economics/ General Business/ Typing/ Science/ Bookkeeping/ and other related disciplines
Chef	Same/Type	Home Economics/ Economics/Health/ Science/Math/Book- keeping/Typing/ Foreign Languages/ etc
Food Inspector	Same	Science/General Business/Bookkeeping/ Typing/Health/Busi- ness Law/Home Eco- nomics/etc
Baker	Same	Home Economics/ Mathematics/ Foreign Languages/ General Business/ etc
Tailor	Same/Type	Industrial Sewing/ Tailoring Classes/ etc

Garment Inspector	Same	Industrial Sewing/ etc
Director of School Lunch Programs	Same	Home Economics/ Health/Science/ Typing/and other related disciplines
Plant Hostess	Same	Home Economics/ Typing/and other related disciplines
Kitchen Supervisor	Same	Home Economics/ Typing/General/ General Business/ Bookkeeping/Health/ Science/Mathematics
Cook	Same/Type	Science/Health/ Mathematics/ Economics
Caterer	Same/Type	Bookkeeping/General Business/Typing/ Home Economics/ Mathematics
Cutter(Clothing)	Same	Home Economics/ Industrial Sewing/ Mathematics
Butcher	Same	Home Economics/ Science/Health/ Mathematics
Waiter	Same	General Business/ Bookkeeping/Business English/Mathematics
Waitress	Same	Same as Waiter
Seamstress (Industrial)	Same	Industrial Sewing
Child Care Attendant	Same	Home Economics/ Science/Health Mathematics/Nursing Assistant
nursemaid	Same	Same as child care attendant
Helper (Cooks)	Same	Same as cook only lacks experiences

Housekeeper	Same	Home Economics/ Science/Health/and related disciplines
Upholsterer	Same/Type	Industrial Sewing/ Building Construction/ and Maintenance/and disciplines related to topic
Dishwasher	Same	Home Economics/ Science/Health
Canning Employees	Same/Type	Home Economics/ Science/and related disciplines
Food Processing Employees	Same/Type	Home Economics/ Science/and related disciplines
Milk/Milk Products Employees	Same	Home Economics/ Science/and related disciplines
Food Technician	Same	Home Economics/ Science/Health/ Algebra/Geometry/ Chemistry/and related disciplines
Dairy Technician	Same	Home Economics/ Health/Science/ Geometry/Algebra/ and related disciplines
Rug Cleaner	Same	Home Economics/ and related disciplines.
Silk Finisher	Same	Industrial Sewing/ and related disciplines
Laundry Employees	Same/Type	Home Economics/ Industrial Sewing/ and related disciplines

Head Baker	Same	Home Economics/ Commercial Cooking/Science/ Health/Algebra/ Foreign Language/ Mathematics and other related disciplines
Pastry Cook	Same	Same as head baker
Cake Decorator	Same	Same as head baker
Barbecue	Same	Same as head baker
Speciality Cook	Same	Same as chef only specialize in some phase of cooking.
Short Order Cook	Same	Home Economics/ Commercial Cooking/ Science/Health/ and related disciplines
Carver	Same	Home Economics/ Science/Health/ Commercial Home Economics/and related disciplines
Sandwitch Man	Same	Commercial Home Economics/and related disciplines
Car Hop	Same	Home Economics/ Mathematics/ General Business
Bus Boy	Same	General Business/ Commercial Home Economics
Barman	Same	Commercial Home Economics/Science/ Chemistry/Mathematics/ Bookkeeping/General Business

Marine Science Occupational Cluster
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<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Dredger	Same	Science/Health/Biology/ Chemistry/Power Mechanics/ and other related disciplines
Life Guard	Same	Health/Physical Education/ Science/and other related disciplines
Ocean Fisherman	Same/Type	Science/Health/ Biology/Chemistry/ Mathematics/Power Mechanics/and other related disciplines
Diver	Same/Type	Science/Health/Typing Biology/Chemistry/ Algebra/Physics/ Physical Education Power Mechanics/and other related disciplines
Ship Fitter	Same	Algebra/Building Construction/Maintenance/ Science/Blueprint Reading/ and other related disciplines
Marina Mechanic	Same/Type	Mathematics/Power Mechanics/Science/ and other related disciplines
Marine Plant Grower	Same	Science/Biology/ Chemistry/Physical Science/Mathematics/ Algebra/and other related disciplines
Fish Hatcher	Same	Same basic disciplines as a Marine Plant Grower
Fish Raiser	Same/Type	Same basic disciplines as a Marine Plant Grower



Ship Designer	Same/Type	Algebra/Trigonometry/ Calculus/Typing/Blue- print Reading/Building Construction and Maintenance/and other related disciplines
Oceanographer	Same	Algebra/Calculus Trigonometry/Physical Science/Biology/ Chemistry/Science/ Typing/and other related disciplines
Ship Builder	Same	Mathematics/Algebra/ Welding/Building Construction and Maintenance/Science/ Blueprint Reading/ and other related disciplines
Motor Boat Mechanic	Same	Same basic disciplines as a Marina Mechanic
Apprentice Machinist	Same	Science/Mathematics/ Power Mechanics/and other related disciplines
Machinist	Same	Same general disciplines as an Apprentice Machinist except more work and educational experience
Gear Man	Same	Science/Mathematics/ Algebra/Power Mechanics and other related disciplines
Caulker	Same	Science/Mathematics/ Algebra/Typing/Power Mechanics/and other related disciplines
Seafood Professor	Same/Type	Science/Mathematics/ Algebra/Typing/Power Mechanics/and other related disciplines

Seafood Sorter

Same/Type

Science/Biology/  
Mathematics/Physical  
Science/Home Economics  
and other related  
disciplines

Seafood Packer

Same/Type

Science/Biology/  
Mathematics/Physical  
Science/General  
Business/Typing/Home  
Economics/and other  
related disciplines

Lookout

Same

Science/Biology  
Chemistry/Physical  
Science/Mathematics/  
Power Mechanics/and  
other related  
disciplines

Transportation Occupational Cluster
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<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Aerospace Engineer	Same	Science/Biology/ Mathematics/Chemis- try/Algebra/Typing Calculus/Trigonometry Health/Geometry/and related disciplines
Airline Pilot	Same	Science/Mathematics/ Algebra/Geometry Calculus/Typing/Power Mechanics, and other related disciplines
Airport Manager	Same	Power Mechanics/ General Business/ Typing/Health Bookkeeping/Psychol- ogy/Recreation Sociology, and other related disciplines
Flight Engineer	Same	Science/Mathematics/ Chemistry/Algebra/ Power Mechanics/and other related disciplines
Traffic Engineer	Same/Type	Algebra/Geometry/ Trigonometry/Calculus Typing/General Business/and other related disciplines
Ship Captain	Same/Type	Science/Physics/ Foreign Language/ Typing/General Business/and other disciplines
Train Engineer	Same	Power Mechanics/ Science/Algebra Mathematics/Typing/ and other related disciplines

Helicopter Pilot	Same	Science/Mathematics/ Algebra/Calculus Typing/Power Mecha- nics/and other related disciplines
Air Traffic Control	Same	Foreign Language/ Health/Data Pro- cessing/Science/ Chemistry/Typing/ and other related disciplines
Station Master	Same	Geography/Sociology/ Psychology/General Business/Typing/ Office Practice/and other related disciplines
Pipe Line Superintendent	Same	General Business/ Office Practice/ Typing/bookkeeping/ Chemistry/Welding/ and other related disciplines
Stewardess	Same	Typing/Filing/ General Business/ Bookkeeping/Account- ing/Data Processing
Transportation Director	Same	Typing/Filing/Power Mechanics/General Business/Bookkeeping/ Accounting/Data Pro- cessing/Office Prac- tice/Office Machines
Operations Manager	Same/Type	Accounting/Typing/ General Business/ Filing/Clerical/ Office Machines/ Office Practice/ Bookkeeping/Power Mechanics
Dispatcher	Same/Type	Typing/General Business/Filing/ Clerical/Shorthand/ Office Machines/ Office Practice/ Bookkeeping/Accounting

Bus Manager	Same/Type	Accounting/Typing/ Office Practice/ Office Machines/ Power Mechanics/ Bookkeeping/Account- ing/Accounting/and related disciplines
Terminal Manager	Same/Type	Accounting/Typing Data Processing/ Filing/General Business/Bookkeep- ing/Accounting/ Power Mechanics/ Sociology/Psychology/ and other related disciplines
Traffic Manager	Same/Type	Drivers Education/ Science/Power Mechan- ics/Accounting/Typ- ing/Filing/and other related disciplines
Warehouse Manager	Same/Type	Science/Chemistry/ Mathematics/Power Mechanics/Account- ing/Typing/Filing/ and other related disciplines
Port Traffic Manager	Same	Foreign Language/ Mathematics/Typing/ Health/Science/ Bookkeeping/Account- ing/Filing/and other related disciplines
Rate Clerk	Same/Type	Accounting/Bookkeep- ing/General Business Filing/Typing/Cler- ical/Office Machines/ Office Practice/and other related disciplines
Driver Supervisor	Same	Drivers Education/ Geography Health/ Science/Power Mecha- nics/Mathematics/and other related disciplines

Railway Express Agent	Same	Mathematics/General Business/Geography/Typing/Bookkeeping/and other related disciplines
Schedule Analyst	Same/Type	Mathematics/Algebra/Physics/Calculus/Typing/and other related disciplines
Road Supervisor	Same	Power Mechanics/Typing/Building Construction/Mathematics/Algebra/Geometry/Bookkeeping/General Business/and other related disciplines
Bus Dispatcher	Same	General Business/Typing/Mathematics/Geography/and other related disciplines
Taxi Driver	Same	Drivers Education/Mathematics/Power Mechanics/General Business/Geography
Bus Driver	Same	Drivers Education/Mathematics/Geography/General Business/Power Mechanics/Health
Ticket Agent	Same/Type	General Business/Typing/Bookkeeping/Accounting/Filing/Data Processing/and other related disciplines
Toll Collector	Same	General Business/Mathematics/Bookkeeping/and other related disciplines
Car Checker	Same	Mathematics/General Business/Bookkeeping/Power Mechanics/Drivers Education/and other related disciplines

Utility Man	Same	Mathematics/General Business/Filing/Bookkeeping/and other related disciplines
Service Station Attendant	Same	Mathematics/General Business/Power Mechanics/Drivers Education
Chauffeur	Same	Drivers Education/Power Mechanics
Auto Mechanic	Same/Type	Drivers Education/Power Mechanics/General Business/Mathematics/and other related disciplines
Heavy Equipment	Same/Type	Power Mechanics/Science/Drivers Education/Mathematics/and other related disciplines
Airline Mechanic	Same/Type	Drivers Education/Power Mechanics/Typing/Mathematics/Science/and other related disciplines
Driving Instructor	Same	Drivers Education/Power Mechanics/Typing/and other related disciplines
Brakeman	Same	Power Mechanics/Typing/Science/and other related disciplines
Diesel Mechanic	Same	Science/Mathematics/Power Mechanics/Drivers Education/Science/and other related disciplines

Stevedore

Same

Power Mechanics/  
Typing/Drivers  
Education/Science/  
Mathematics/and  
other related  
disciplines

Longshoreman

Same

Drivers Education/  
Typing/Science/  
Mathematics/Power  
Mechanics/and  
other related  
disciplines



<p>Agriculture and Agri. Business</p> <p>Occupational Cluster</p>
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<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Grain Farmer	Same/Type	Science/Chemistry/ Math/General Business/ Biology/Typing/Power Mechanics and other related disciplines
Grove Farmer	Same/Type	The same general disciplines as a Grain Farmer
Grape Grower	Same/Type	The same general disciplines as a Grain Farmer
Tobacco Farmer	Same	The same general disciplines as a Grain Farmer
Orchardist	Same/Type	Science/Chemistry/ Health/Physical Science/Biology Typing/Power Mechanics/ General Business and other related disciplines
Hay Farmer	Same/Type	The same general disciplines as a Grain Farmer
Shaking Machine Operator	Same	Science/Chemistry/ Biology/Power Mechanics/ and other related disciplines
Farm Laborer	Same	Power Mechanics and other related disciplines
Farm Manager	Same/Type	General Business/ Typing/Health/Algebra/ Chemistry/Science/ Accounting/Bookkeeping/ Power Mechanics/ Building Construction and other related disciplines

Livestock Inspector	Same	Chemistry/Science/ Biology/Physical Science/Health/ General Business/ Typing and other related disciplines
Virus-Serum Inspector	Same	Chemistry/Algebra/ Health/Typing/ Physical Science/ Biology/Geometry/ Science/Calculus/ Trigonometry and other related disciplines
Livestock Buyer	Same	Typing/Accounting/ Health/Bookkeeping/ Science/Chemistry/ Mathematics and other related disciplines
Meat Inspector	Same	Chemistry/Biology/ Health/Science/ Mathematics/General Business/Typing and other related disciplines
Tobacco Curer	Same	Science/Chemistry/ Power Mechanics and other related disciplines
Tabacco Buyer	Same	Same general disciplines as Livestock Buyer
Park Ranger	Same	Biology/Chemistry/ Health/General Business/Physical Science/Mathematics/ Typing and other related disciplines
Fish and Game Warden	Same	Health/Science/ Physical Science/ Biology/Chemistry/ Algebra/Mathematics and other related disciplines

Park Caretaker	Same	Same general disciplines as a Caretaker
Park Worker	Same	Same general disciplines as a Caretaker
Soil Conservationist	Same	Health/Science/ Chemistry/Biology/ Physical Science/ Algebra/Trigonometry and other related disciplines
Fire Patrolman	Same	Same general disciplines as a Park Ranger
Log Buyer	Same	Science/Chemistry/ Bookkeeping/Typing/ General Business/ Algebra/Mathematics and other related disciplines
Logging Contractor	Same	Science/Bookkeeping/ General Business/ Power Mechanics/ Typing and other related disciplines
Seed Cone Picker	Same/Type	Science/Biology/ Chemistry/Physical Science and other related disciplines
General Farmer	Same	Science/Biology/ Power Mechanics/ Chemistry/General Business/Mathematics/ Health/Typing and other related disciplines
Caretaker	Same	Science/General Business/Biology/ Chemistry/Health/Typing/Mathematics and other related disciplines

Farm Equipment Operator	Same/Type	Science/General Business/Biology/Chemistry/Health/Power Mechanics and other related disciplines
Tractor Mechanic	Same	Power Mechanics/General Business/Mathematics and other related disciplines
Greaser	Same	General Business/Mathematics/Power Mechanics and other related disciplines
Irrigator	Same	Science/Biology/Chemistry/Physical Science/Power Mechanics and other related disciplines
Poultryman	Same	Chemistry/General Business/Science/Health/Physical Science/Power Mechanics/Typing and other related disciplines
Tenant Farmer	Same/Type	Health/Science/Biology/Mathematics/Power Mechanics and other related disciplines
County Agriculture Agent	Same	Science/Biology/Physics/Chemistry/Typing/Health/General Business/Algebra/Power Mechanics/Sociology/Psychology and other related disciplines
Harvest Contractor	Same/Type	General Business/Typing/Science/Biology and other related disciplines

Exterminator	Same	Science/Physical Science/Biology/Health/Chemistry/General Mathematics and other related disciplines
Weed Inspector	Same	Science/Biology/Physical Science/Health/Chemistry/Algebra/Typing and other related disciplines
Fumigator	Same	Same general disciplines as a Exterminator
Seed Analyst	Same	Science/Chemistry/Physics/Biology/Physical Science/Algebra/Health and other related disciplines
Tree Pruner	Same	Science/Biology/Health/General Business/Power Mechanics and other related disciplines.
Veterinarian	Same	Algebra/Trigonometry/Sociology/Chemistry/Physics/Health/Psychology/Biology/Science and other related disciplines
Laboratory Technician	Same/Type	Same general disciplines as a veterinarian except not as much formal training
Forest Fire Fighter	Same	Science/Health/Power Mechanics/Chemistry/Mathematics and other related disciplines

Trapper	Same	Health/Science/ General Business/ Chemistry and other related disciplines
Fish Farmer	Same	Same general disciplines as a Poultryman
Frog Grower	Same	Same general disciplines as a Poultryman
Cattle Raiser	Same	The same general disciplines as a Grain Farmer
Sheep Grower	Same	The same general disciplines as a Grain Farmer
Oil Dispatcher	Same	Science/Algebra/ Typing/Mathematics/ Chemistry/Geography and other related disciplines
Gas Dispatcher	Same	Same general disciplines as an Oil Dispatcher
Coal Dispatcher	Same	Same general disciplines as an Oil Dispatcher
Contracts Manager	Same/Type	General Business/ Algebra/Chemistry/ Business Law/Typing/ Accounting/Psychology/ Sociology and other related disciplines.
Driller	Same/Type	Mathematics/Science/ Health/Chemistry/ Power Mechanics and other related disciplines
Rigger	Same/Type	About the same general disciplines as a Driller

Service Station Attendant	Same	Mathematics/General Business/Science/Health/Typing and other related disciplines
Leaseman	Same/Type	The same general disciplines as a Contracts Manager
Superintendent	Same/Type	Science/General Business/Mathematics/Typing/Chemistry/Health/Power Mechanics and other related disciplines
Foreman	Same/Type	The same general disciplines as the Superintendent only lacks experience or occupational opening
Motorman	Same	Science/Health/Power Mechanics/Mathematics and other related disciplines
Safety Inspector/Mine	Same	Health/Science/Chemistry/Physical Science/Mathematics/Typing and other related disciplines
Cutting Machine Operator	Same	Health/Science/Mathematics/Power Mechanics and other related disciplines
Rock-dust Machine Operator	Same	Same general disciplines as a cutting Machine Operator
Drilling Machine Operator	Same	Same general disciplines as a cutting Machine Operator
Loading Machine Operator	Same	Same general disciplines as a cutting Machine Operator

Ventilator/Mine	Same	Algebra/Physical Science/Science/Chemistry/Math/Health/Power Mechanics and other related disciplines
Loading Machine Operator	Same	Same general disciplines as a cutting Machine Operator
Shot Firer/Mine	Same	Science/Chemistry/Algebra/Health/Physical Science/Power Mechanics and other related disciplines
Biochemist	Same	Chemistry/Science/Health/Typing/Biology/Mathematics/Physical Science/Algebra/Trigonometry and other related disciplines
Botanist	Same	Same general disciplines as a Biochemist
Fur Farmer	Same/Type	Biology/Science/Chemistry/Algebra/General Business and other related disciplines.
Horticulturist	Same	Biology/Chemistry/General Business/Mathematics/Bookkeeping Science/Physical Science/Mathematics and other related disciplines
Vegetable Farmer	Same	The same general disciplines as a Grain Farmer
Zoologist	Same	The same basic disciplines as a Biochemist



Mining Engineer	Same/Type	Chemistry/Algebra/ Biology/Physics/ Calculus/Physical Science/Typing/ Mathematics and other related disciplines
Petroleum Engineer	Same	The same basic disciplines as a Mining Engineer
Herb Grower	Same	Same general disciplines as a Horticulturist
Prospector	Same/Type	About same general disciplines as a Trapper

Construction
Occupational Cluster

<u>Occupation</u>	<u>In-depth Study</u>	<u>Discipline</u>
House Builder	Same	Science/Mathematics/ Algebra/General Business/Building and Maintenance/ Health/Blueprint Reading and other related disciplines
Bridge Inspector	Same	Science/Mathematics/ Algebra/Geometry/ Chemistry/Typing/ Health/Building and Maintenance/Blueprint Reading and other related disciplines
House Repairman	Same/Type	Science/Mathematics/ General Business/ Building and Maintenance
Carpenter	Same	Science/Algebra/ Mathematics/Building Construction and Maintenance/General Business/Blueprint Reading and other re- lated disciplines
Bowling Alley Installer	Same	Science/Algebra/ Mathematics/General Business/Building Construction and Maintenance
Tank Builder and Erector	Same	Same Basic disciplines as a Carpenter
Billboard Erector and Repairman	Same	Science/Art/Mathematics/ General Business/ Building Construction and Maintenance
Shorer	Same	Same basic disciplines as a Carpenter

Form Builder	Same	Same basic disciplines as a Carpenter
Electrician	Same	Same basic disciplines as a Carpenter
Asbestos and Insulating Installer	Same	Same basic disciplines as a Carpenter
Structural Steel Installer	Same	Same basic disciplines as a Carpenter
Painter	Same	Science/Mathematics/ Health/Algebra/ General Business/ Building Construction and other related disciplines
Waterproofer	Same	Science/Biology/ Health/Physical Science/Mathematics/ Algebra/Building Construction and Maintenance and other related disciplines
Plasterer	Same	Same basic disciplines as a Painter
Pipe Layer	Same	Science/Algebra/ Health/Mathematics/ General Business/ Geography/Biology/ Blueprint Reading/ Physical Science/ Building Construction and Maintenance and other related disciplines
Coppersmith	Same	Science/Biology/ Algebra/General Business/Blueprint Reading/Physical Science/Welding and other related disciplines
Dry Wall Sander	Same	Same basic disciplines as a Painter

Gas Main Fitter	Same	Same basic disciplines as a Pipe Layer
Plumber	Same	Same basic disciplines as a Pipe Layer
Dry Wall Applicator	Same	Same basic disciplines as a Carpenter
Glazier	Same	Same basic disciplines as a Plasterer
Glass Installer	Same/Type	Mathematics/Algebra/Science/Health/First Aid/Building Construction and Maintenance and other related disciplines
Roofer	Same	Same basic disciplines as a Carpenter
Boilermaker	Same	Same basic disciplines as a Pipe Fitter
Asphalt Paving Machine Operator	Same	Same basic disciplines as a Bulldozer Operator
Earth Boring Machine Operator	Same	Same basic disciplines as a Bulldozer Operator
Pile Driver Operator	Same	Same basic disciplines as a Bulldozer Operator
Well Driller Operator	Same	Science/Mathematics/Health/Physics/Earth Science/Biology/Power Mechanics and other related disciplines
Rotary Drill Operator	Same	Same basic disciplines as a well Drill Operator
Dragline Operator	Same	Same basic disciplines as a well Drill Operator
Crusher Operator	Same	Science/Mathematics/Science/Health/Algebra/Power Mechanics

Yardman	Same/Type	Science/Health/ Biology/Mathematics/ Building Maintenance and Construction and other related disciplines
Rigger	Same	Same basic disciplines as a well Drill Operator
Brickmason	Same	Science/Blueprint Reading/Mathematics/ Health/Algebra/ Geometry/Building Construction and Maintenance and other related disciplines
Marble Setter	Same	Same basic disciplines as a Brickmason
Monument Installer	Same	Same basic disciplines as a Brickmason
Permastone Mason	Same	Same basic disciplines as a Brickmason
Stone Mason	Same	Same basic disciplines as a Brickmason
Welder	Same	Algebra/Mathematics/ Geometry/Blueprint Reading/Health/Science/ Welding
Surveyor	Same/Type	Mathematics/Algebra/ Calculus/Trigonometry/ Typing/Physics and other related disciplines
Crane Operator	Same/Type	Mathematics/Science/ Geography/Power Mechanics/Health and other related disciplines
Mine Machinery Mechanic	Same	Algebra/Mathematics/ Science/Health/Power Mechanics and other related disciplines

Repairman	Same/Type	General Business/ Science/Health/ Algebra/Mathematics/ Power Mechanics and other related disciplines
Bulldozer Operator	Same/Type	Algebra/Blueprint Reading/Science/ Mathematics/Health/ Power Mechanics and other related disciplines
Power Shovel Operator	Same	Same basic disciplines as a Bulldozer Operator
Scraper Operator	Same	Same basic disciplines as a Bulldozer Operator
Concrete Paver Operator	Same	Same basic disciplines as a Bulldozer Operator
Form Grader	Same	Same basic disciplines as a Bulldozer Operator
Asphalt Plant Operator	Same	Science/Health/ Mathematics/General Business/Power Mechanics and other related disciplines
Stone Spreader Operator	Same	Same basic disciplines as a Bulldozer Operator
Pipefitter	Same	Same basic disciplines as a Plumber
Structural Steel Worker	Same	Science/Health/ Mathematics/Algebra/ Building Construction and Maintenance and other related disciplines

Trench Digger	Same	Same basic disciplines as a Dozer Operator
Sweeper Operator	Same	Same basic disciplines as a Dozer Operator
Aerospace Engineer	Same	Science/Physical Science/Algebra/ Biology/Chem. etc./ Geometry/ Health Chemistry and other related disciplines
Civil Engineer	Same	Same basic disciplines as a Aerospace Engineer
Electrical Engineer	Same	Same basic disciplines as a Aerospace Engineer
Draftsman	Same	Algebra/Mechanical Drawing Electrical Reading of Plans etc./ Science Chemistry/ Geometry and other related disciplines
Architecture	Same/Type	Same basic disciplines as a Draftsman

Manufacturing Occupational Cluster
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Occupation	Depth Study	Discipline
Electronic Designer	Same /Type	Art/Graphic Art/Blueprint Reading/Power Mechanics / and other related disciplines
Laboratory Technician	Same	Science/Chemistry/Algebra/Physics/ Science/ Calculus/Geometry/and other related disciplines
Mechanical Draftsman	Same	Science/Chemistry/ Graphic Arts/Algebra/ Geometry/Calculus/and other related disciplines
Quality Control Technician	Same	Same basic disciplines Laboratory Technician
Production Engineer	Same	Algebra/Geometry/Calculus Physics/Chemistry/ Sociology/Psychology/ and other related disciplines
Industrial Engineer	Same	Algebra/Chemistry/Geometry Physics/Calculus/Blueprint Reading/Graphic Art/ Science/Power Mechanics and other related disciplines
Mechanical Engineer	Same	Same basic disciplines as a Industrial Engineer
Metallurgical Engineer	Same	Same basic disciplines as a Industrial Engineer
Designer	Same/Type	Science/Graphic Art Mathematics/Algebra/ Geometry/Physics/Art/ Blueprint Reading/ History/Sociology/ Economics/and other related disciplines



Chemical Engineer	Same	Same basic disciplines. as an Industrial Engineer
Programmer	Same	Accounting/Typing/ Clerical/Office Practice/ and other related disciplines
Systems Analysts	Same	Same basic disciplines as a Market Analyst
Instrument Maker	Same	Same basic disciplines as a Tool and Die Maker
Seamstress	Same/Type	General Business/Health Mathematics/Science/ Commercial Sewing/and other related disciplines
Scaleman	Same	General Business/Office Practice/Mathematics/ Office Machines and other related disciplines
Anode Man	Same	Science/Mathematics/ Welding/and other related discipline
Pot Liner	Same	Same basic disciplines as a Anode Man
Tapper	Same	Same basic disciplines as a Anode Man
Casting Operator	Same	Same basic disciplines as a Anode Man
Rolling Mill Operator	Same	Mathematics/Algebra/ Health/Chemistry/ Science/Power Mechanics/ and other related disciplines
Wire Draw Operator	Same	Same basic disciplines as a Rolling Mill Operator
Electrician Operator	Same	Science/Health/Chemistry/ Building Construction and Maintenance/and other related disciplines

Maintenance Machinist	Same	Science/Mathematics/ Algebra/Power Mechanics/ and other related disciplines
Diemaker	Same	Same basic disciplines as a Tool and Die Maker
Grinder Operator	Same	Blueprint Reading/ Science/Chemistry/Health/ Mathematics/Algebra/ Power Mechanics/and other related disciplines
Mixer Operator	Same	Same basic disciplines as a Grinder Operator
Blower	Same	Blueprint Reading/ Science/Health/Mathematics/ General Business/ Power Mechanics and other related disciplines
Packer	Same/Type	General Business/ Mathematics/Business Law/ Typing/Science/and other related disciplines
Rigger	Same	Science/Mathematics/ Health/General Business/ Building Construction and Maintenance/and other related disciplines
Roll Turner	Same	Blueprint Reading/ Science/Health/Mathematics/ Power Mechanics/ and other related disciplines
Shearman	Same	Mathematics/Science/ General Business/Health/ Power Mechanics/and other related disciplines
Roller	Same	Same basic disciplines as a Roll Turner
Melter	Same	Science/Chemistry/ Biology/Algebra/Geometry/ Power Mechanics/and other related disciplines
Shipman	Same	Same basic disciplines as a Packer

Temperature Specialist	Same	Chemistry/Physical Science/Algebra/Geometry/Calculus/Physics/Accounting/Typing/and other related disciplines
Pricer	Same	Business Machines/Economics/Business Law/Mathematics/Algebra/Typing/Accounting/General Business/and other related disciplines
Electronic Engineer	Same	Same basic disciplines as a Industrial Engineer
Time Study Technician	Same	Same basic disciplines as an Industrial Engineer
Tool Designer	Same/Type	Same basic disciplines as a Designer
Supervisor	Same/Type	Basic disciplines would depend upon the area of competency
Foreman	Same/Type	Same as Supervisor
Machine Tool Operator	Same	Mathematics/Algebra/Power Mechanics/and other related disciplines
Molder	Same/Type	Science/Blueprint Reading/Chemistry/Algebra/Calculus/and other related disciplines
Sample Stitcher	Same	Science/Mathematics/Home Economics/Industrial Sewing/and other related disciplines
Pattern Maker	Same/Type	Same basic disciplines as a Sample Stitcher
Pattern Grader	Same	Same basic disciplines as a Sample Stitcher
Bundler	Same	Mathematics/General Business/Industrial Sewing/and other related disciplines

Fitter	Same/Type	Mathematics/Graphic Arts/ Industrial Sewing/and other related disciplines
Chemical Operator	Same/Type	Science/Chemistry/Physics/ Algebra/Geometry/Health/ and other related disciplines
Market Analyst	Same	General Business/Typing/ Accounting/Bookkeeping/ Economics/Business Law/ and other related disciplines
Materials Handler	Same/Type	General Business/ Health/Mathematics/ Science and other related disciplines
Filterer Operator	Same	Same basic disciplines as a Materials Handler
Operator	Same/Type	Science/Mathematics/ Power Mechanics and other related disciplines
Tool and Die Maker	Same	Science/Mathematics/ General Business/Power Mechanics, and other related disciplines
Milling Machine Operator	Same	Science/Mathematics/ Health/Power Mechanics/ and other related disciplines
Patternmaker	Same/Type	Same basic disciplines as a Tool and Die Maker
Boilermaker	Same	Science/Chemistry/Health/ Algebra/Mathematics/ Welding/and other related disciplines
Millwright	Same	Same basic disciplines as a Boilermaker
Machinist	Same	Science/Chemistry/Health/ Mathematics/Algebra/ Power Mechanics/and other related disciplines
Heating Technician	Same	Same basic disciplines as a Machinist

1-133

Public Service
Occupational Cluster

<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Fire Chief	Same	Building Construction and Maintenance/Health/Science/Chemistry/Driver Education/Mathematics and other related disciplines
Fire Captain	Same	Same as Fire Chief only lacks experience or lack of vacancy in the fire department
Fire Inspector	Same	Building Construction and Maintenance/Health/Chemistry/Science/Driver Education Mathematics/Typing and other related disciplines
Fire Fighter/Man	Same/Type	Building Construction and Maintenance/Science/Chemistry/Health/Physical Education and other related disciplines
Police Chief	Same	Typing/Business Law/Psychology/Sociology/Office Practice/Health/Science/Chemistry and other related disciplines
Policeman	Same	Same as Police Chief only lacks experience/education or vacancy in the department
Harbor Master	Same	Science/Biology/Chemistry/Mathematics/

		Welding/Algebra and other related disciplines
Head Matron	Same	Science/Chemistry/ Mathematics/General Business/Home Econ- omics/Business law and other related disciplines
Highway Patrolman	Same	Science/General Business/Typing/ Driver Education/ Physical Education/ Sociology/Psychology/ Chemistry and other related disciplines
Detective	Same/Type	Science/Typing/ Chemistry/Algebra/ Driver Education/ Sociology/Psychology/ Business law and other related disciplines
Policewoman	Same	Same general dis- ciplines as matron only does not have experience educa- tion or lack of a vacancy
Fingerprint Classifier	Same	General Business/ Chemistry/Typing/ Science/Algebra/ and other related disciplines
Border Patrolman	Same	Physical Education/ Bookkeeping/Algebra/ Chemistry/Typing/ Geography/Business law/Driver Educa- tion/Foreign lan- guage and other related disciplines
Alarm Investigator	Same	Science/Chemistry/ Building Construc- tion and Maintenance and other related disciplines

Narcotics Investigator	Same	Chemistry/Physics/ Physical Science/ Typing/Algebra/ Geometry and other related disciplines
Store Detective	Same	Science/General Business/Typing and other related disciplines
Bailiff	Same	General Business/ Typing/ and other related disciplines
Sheriff	Same	Office Practice/ Typing/Bookkeeping/ Accounting/Sociology/ Psychology and other related disciplines
License Inspector	Same	General Business/ Typing/Mathematics/ and other related disciplines
Safety and Sanitary Inspector	Same	General Business/ Typing/Chemistry Science/Driver Education and other related disciplines
Building Inspector	Same	Building Construc- tion and Mainten- ance/Science/General Business/Typing and other related disciplines
Safety Man	Same/Type	Chemistry/Science/ Building Construc- tion and Maintenance/ Typing/Mathematics/ and other related disciplines
Probation Officer	Same	Typing/Mathematics/ General Business/ Sociology and other related disciplines
Judge	Same/Type	Typing/Political Science/Economics/

		Sociology/Psychology/ Chemistry and other related disciplines
Warden	Same	Generally the same basic disciplines as a Probation Officer
Guard	Same/Type	General Business/ Typing and other related disciplines
Laboratory Tester	Same/Type	Science/Biology/ Chemistry/Algebra/ and other related disciplines
Political Scientist	Same	Typing/Political Science/Sociology/ Psychology/Economics/ and other related disciplines
Secret Service Agent	Same	Typing/Political Science/Economics/ Business Law/Psy- chology/Sociology and other related disciplines
Teacher	Same/Type	Basic disciplines for college or university entrance plus all disciplines that are related to area they plan to major in
Internal Revenue Agent	Same	General Business/ Bookkeeping/Account- ing/Business Math/ Algebra/Business Law/Typing and other related disciplines
Meter Reader	Same	General Business/ Typing and other related disciplines



Health Occupational Cluster
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<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Dental Assistant	Same	Science/Health/Chemistry/ Algebra/Geometry/Typing Physical Science/Biology/ and other related disciplines
Dental Hygienist	Same	Same basic disciplines as a Dental Assistant
Dental Technician	Same	Same basic disciplines as a Dental Assistant
Denture Set Up Man	Same	Same basic disciplines as a Dental Assistant
Dentist	Same	Same basic disciplines as a Dental Assistant except more indepth education
Medical Technologist	Same	Science/Health/Typing Biology/Chemistry/Algebra/ Nursing Assistant and Medical Office Practice/ and other related disciplines
Medical Laboratory Assistant	Same	Same basic disciplines as a Medical Technologist
Licensed Registered Nurse	Same	Same basic disciplines as a Medical Technologist
Practical Nurse	Same	Same basic disciplines as a Medical Technologist
Nurses Aide	Same	Same basic disciplines as a Medical Technologist
Orderly	Same	Same basic disciplines as a Medical Technologist
Home Attendant	Same	Science/Biology/Mathematics Nursing Assistant and Medical Office Practice/ and other related disciplines

Surgical Technician	Same	Algebra/Geometry/Health Trigonometry/Chemistry/ Physics/Nursing Assistant/ Typing & Medical Office Practice/and other related disciplines
Physical Therapy Attendant	Same	Same basic disciplines as a Medical Technologist
Radiologic Technologist	Same	Same basic disciplines as a Medical Technologist
Nuclear Medical Technologist	Same	Same basic disciplines as a Medical Technologist
Contact Lens Technician	Same	Science/Health/Biology/ Algebra/Mathematics/ Typing/Power Mechanics/ and other related disciplines
Electroencephalograph Technician	Same	Same basic disciplines as a Medical Technologist
Electrocardiograph Technician	Same	Same basic disciplines as a Medical Technologist
Medical Assistant	Same	Typing/Science/Algebra/ Chemistry/Health/Biology/ Nursing Assistant and Medical Office Practice/ and other related disciplines
Central Supply Worker	Same	Filing/Office Practice/ General Business/Typing/ Health/Biology/Nursing Assistant and Medical Office Practice/and other related disciplines
Fire Prevention Research Engineer	Same	Same basic disciplines as a Medical Technologist
Public Health Sanitarian	Same	Same basic disciplines as a Medical Assistant
Social Worker	Same	Psychology/Sociology/ Typing/Algebra/General Business/Chemistry/ Health/Filing/Office Practice and other related disciplines

Medical Secretary	Same	Medical Office Practice/ English/Typing/Bookkeeping/ Filing/Shorthand and other related disciplines
Medical Librarian	Same	Typing/Bookkeeping/ Filing/Shorthand/Library Science/General Business/ Medical Office Practice and other related disciplines
Medical Artist	Same	Typing/General Business/ Medical Office Practice/ Mathematics/Art/and other related disciplines
Medical Photographer	Same	Same basic Disciplines as a Medical Artist
Druggist	Same	Chemistry/Typing/Foreign Language/Mathematics/ Algebra/Geometry/ Physics/ Physical Science/ Science/Biology and other related disciplines
Medical Chemist	Same	Same basic disciplines as a Druggist
Hospital Administrator	Same	General Business/Book- keeping/Accounting/ Chemistry/Mathematics/ Algebra/Science/ Speech/and other related disciplines
Physical Therapist	Same	Same basic disciplines as a Psychologist
Speech Therapist	Same	Same basic disciplines as a Psychologist
Hearing Therapist	Same	Same basic disciplines as a Psychologist
Chiropractor	Same	Same basic disciplines as a Psychologist
Dietitian	Same	Science/Chemistry/Typing/ Biology/Geometry/Algebra/ Home Economics/Calculus/ Physics/Foreign Language/ and other related disciplines

Vocational Rehabilitation Counselor	Same	Typing/Algebra/General Business/Office Practice/Mathematics/Chemistry/Physics/Bookkeeping/Science and other related disciplines
Inhalation Therapist	Same	Same basic disciplines as a Medical Technologist
Radiologist	Same	Same basic disciplines as a Medical Technologist
Anesthetist	Same	Same basic Disciplines as a Medical Technologist
Psychologist	Same	Foreign Language/Calculus/Physics/Algebra/Science/Mathematics/ Geometry/Typing/Biology/Health/Chemistry/Nursing Assistant /Medical/ Medical Office Practice/ and other related disciplines
X-Ray Technician	Same	Same basic disciplines as a Medical Assistant
First Aid Attendant	Same	Biology/Health/Science/Typing/Mathematics/Nursing Assistant and Medical Office Practice and other related disciplines
Ambulance Attendant	Same	Biology/Health/Science/First Aid/Mathematics/Driver Education/Nursing Assistant and Medical Office Practice and other related disciplines
General Practitioner	Same	Same basic disciplines as a Psychologist
Specialized Practitioner	Same/Type	Same basic disciplines as a Psychologist
Surgeon	Same/Type	Same basic disciplines as a Psychologist

Arts And Humanities Occupational Cluster
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<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Sculpture	Same/Type	Mathematics/Chemistry/ Science/Art/and other related disciplines
Art Director	Same	Same basic disciplines as an Sculptor
Color Expert	Same	Mathematics/Chemistry/ Science/Physical related disciplines
Painter	Same/Type	Same basic disciplines as a Color Expert.
Cover Designer	Same	Same basic disciplines as a Color Expert
Art Lay Out Man	Same	Same basic disciplines as a Color Expert
Bank Note Designer	Same	Same basic disciplines as a Color Expert
Commerical Designer	Same	Same basic disciplines as a Color Expert
Sign Designer	Same	Art/Painting/English/ Mathematics/Building Construction and Maintenance/Science/ Chemistry/and other related disciplines
Cartoonist	Same	Typing/Art/Graphic Art/ English/Speech/Mathematics and other related disciplines
Airbrush Artist	Same	Same basic disciplines as a Cartoonist
Sign Painter	Same	Same basic disciplines as a Painter
Set Decorator	Same	Art/Graphic Art/Blueprint/ Typing/Building Construction and Maintenance/Sewing/ Mathematics/General Business and other related disciplines

Landscape Artist	Same	Same basic disciplines as a Set Director
Visual Information Specialist	Same	Same basic disciplines as a Set Director
Sketcher	Same	Same basic disciplines as a Cartoonist
Stage Scenery Designer	Same	Same basic disciplines as a Set Decorator
Apparel Designer	Same	Art/Graphic Art/Mathematics/Blueprint Reading Chemistry/Industrial Sewing/Health/and other related disciplines
Stage Electrician	Same	Mathematics/Blueprint Reading/Science/General Business/Building Construction and Maintenance and other related disciplines
Director	Same/Type	Art/Graphic Art/English/Foreign Language/Speech/Algebra/Creative Writing/Psychology/Sociology/Drama/General Business/Health/and other related disciplines
Producer	Same/Type	Same basic disciplines as a Director
Film Editor	Same	Chemistry/Science/Physical Science/Speech/Mathematics/Algebra/Calculus/and other related disciplines
Performing Musicians	Same	English/Voice/Speech Creative Writing/Music Drama/Mathematics/Algebra/and other related disciplines
Textile Designer	Same	Same basic disciplines as an Apparel Designer

Industrial Designer	Same/Type	Art/Graphic Art/Mathematics Algebra/Geometry/Physics/ Blueprint Reading/Calculus/ and other related disciplines
Actor	Same/Type	Speech/English/ Foreign Language/Drama/ Music/Mathematics/Graphic Art/Art/Creative Writing/ and other related disciplines
Actress	Same/Type	Same basic disciplines as an Actor
Playwright	Same/Type	English/Foreign Language/ Creative Writing/Mathematics/ Sociology/ Psychology/General Business/Typing/Short- hand/Business Law/and other related disciplines
Writer	Same/Type	Same basic disciplines as a Playwright
Arranger	Same/Type	Same basic disciplines as a Conductor
Dance Teacher	Same/Type	Same basic disciplines as a Dancer
Opera Singer	Same	Same basic disciplines as a Singer
Concert Singer	Same	Same basic Disciplines as a Singer
Theatrical Director	Same	Same basic disciplines as a Director
Printer	Same/Type	English/Graphic Arts/ Art/Journalism/Creative Writing/Foreign Language/ Mathematics/Power Mechanics/and other related disciplines
Lingistic	Same	English/Foreign Languages/ Creative Writing/Shorthand/ Speech/and other related disciplines

Historian	Same	American History/World History/Economics/Sociology/Psychology/Philosophy/Government/Geography/and other related disciplines
Etcher	Same	Same basic disciplines as a Printer
Curator	Same	Art/Sociology/History/Drama/Graphic Art/Mathematics/Sociology/Psychology/Typing/General Business/and other related disciplines
Conductor	Same/Type	English/Foreign Language/Drama/Speech/Music/Mathematics/Algebra/General Business/Business Law/and other related disciplines
Violinist	Same	Same basic disciplines as a Conductor
Singer	Same/Type	Creative Writing/Music/Speech/Voice/Math/Foreign Language/Speech/Drama/and other related disciplines
Pianist	Same/Type	Same basic disciplines as a Conductor
Organist	Same/Type	Same basic disciplines as a Conductor
Composer	Same/Type	Same basic disciplines as a Conductor
Museum Worker	Same/Type	Same basic disciplines as a Curator
Stage Designer	Same	Same basic disciplines as a Set Decorator
Art Teacher	Same/Type	Psychology/Sociology/Foreign Language/Chemistry/Mathematics/Algebra/Art/Music/Drama/Speech/and other related disciplines



Artist	Same/Type	Same basic discipline as an Art Teacher
Dancer	Same/Type	Music/Art/Mathematics/ Physical Education/ Science/Health/Speech/ Drama/and other related disciplines
Ballerina	Same	Same basic disciplines as a Dancer
Musician	Same/Type	Same basic disciplines as a Pianist, Violinist or Organist
Architecture	Same/Type	Mathematics/Algebra/ Geometry/Calculus Graphic Art/Blueprint Reading/ Building Construction and Maintenance/Science Chemistry/Physics and other related disciplines
Anthropologist	Same	Ecology/Science/Biology/ Foreign Language/ Chemistry/Calculus/Physical Science/Earth Science/ Algebra/Geometry/Psychology Sociology/History/and other related disciplines
Philosopher	Same	English/Speech/Creative Writing/Foreign Language/ Art/ History/Sociology/ Economics/Geography/ Mathematics/and other related disciplines
Photographer	Same/Type	Chemistry/Science/ Graphic Art/Art/Mathe- matics/and other related disciplines

Environmental

Occupational Cluster

<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Ecologist	Same	Science/Chemistry/ Health/Physical Science/Physics/ Algebra/Trigonometry/ Calculus/Biology/ Geometry/Typing and other related disciplines
Geologist	Same	Science/Chemistry/ Health/Physical Science/Physics/ Earth Science/ Algebra/Trigonometry/ Calculus/Biology/ Typing and other related disciplines
Geophysicist	Same	Same basic disciplines as a Geologist
Paleontologist	Same	Same basic disciplines as a Geologist
Meteorologist	Same	Same basic disciplines as a Geologist
Oceanographer	Same	Same basic disciplines as a Geologist
Solid State	Same	Geometry/Science/ Chemistry/Health/ Physical Science/ Earth Science/Biology and other related disciplines
Biologist	Same	Same basic disciplines as a Geologist
Botanist	Same	Same basic disciplines as a Geologist
Zoologist	Same	Same basic disciplines as a Geologist

Anatomist	Same	Same basic disciplines as a Geologist
Pathologist	Same	Same basic disciplines as a Geologist
Atomic Scientist	Same	Same basic disciplines as a Geologist
Research Scientist	Same	Same basic disciplines as a Geologist
Applied Scientist	Same	Same basic disciplines as a Geologist
Technicians	Same/Type	Science/Biology/ Chemistry/Health/ Physical Science/ Power Mechanics/ Earth Science and other related disciplines
Physicists	Same	Same basic disciplines as a Geologist
Skilled Machinist	Same	Same basic disciplines as a Technician
Geneticists	Same	Same basic disciplines as a Geologist
Biophysicists	Same	Same basic disciplines as a Geologist
Microbiologist	Same	Same basic disciplines as a Geologist
Hydrologist	Same	Same basic disciplines as a Geologist
Seismologist	Same	Same basic disciplines as a Geologist
City Planner	Same	Mathematics/Algebra/ Geometry/Blueprint/ Reading/Building Construction and Maintenance/Bookkeeping and other related disciplines

Soil Conservationist

Same

Health/Science/  
Chemistry/Biology/  
Geometry/Physical  
Science/Algebra/  
Trigometry and  
other related  
disciplines

Communication and Media

Occupational Cluster

<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Acoustical Scientist	Same	Chemistry/Science/ Algebra/Geometry/ Typing/Physical Science/ Health/Earth Science/ and other related disciplines
Optical Scientist	Same	Same basic disciplines as an Acoustical Scientist
Broadcast Technician	Same	Typing/General Business/ Mathematics/Power Mechanics and other related disciplines
Electronic Technician	Same	Algebra/Geometry/ Trigonometry/Physical Science/Chemistry/Power Mechanics and other related disciplines
Instrument Repairman	Same	Same basic disciplines as a Broadcast Technician
Radio-TV Serviceman	Same	Same basic disciplines as a Broadcast Technician
Book Editor	Same	Sociology,/Art/English/ Speech/Foreign Language/ General Business/ Journalism/Typing and other related disciplines
Newspaper Editor	Same	Same basic disciplines as a Book Editor
Magazine Editor	Same	Same basic disciplines as a Book Editor
Reporters	Same/Type	Creative Writing/Typing General Business/ Business Law/Sociology/ Psychology/Journalism Foreign Language/Speech/ Shorthand and other related disciplines

Book Salesman	Same	Typing/General Business/ Speech/Office Practice/ Mathematics/Business Law/ and other related disciplines
Magazine Designers	Same	Art/Mathematics/Typing/ English/Speech/Foreign Language/Typing/Office Machines/Office Practice/ and other related disciplines
Audio Engineer	Same	Science/Chemistry/ Physics/Calculus/Mathe- matics/Algebra/Geometry/ Earth Science/Typing Foreign Language and other related disciplines
Video Engineer	Same	Same basic disciplines as an Audio Engineer
Station Announcer	Same	Speech/English/Mathe- matics/Power Mechanics/ Typing/Creative Writing Drama/ and other related disciplines
Newscaster	Same	Same basic disciplines a Station Announcer
Sports Director	Same	Physical Education/ Speech/Typing/General Business/Business Law and other basic disciplines
Sports Announcer	Same	Same basic disciplines as a Sports Director
Telegrapher	Same	Typing/General Business/ Office Practice/Filing/ Shorthand/Business Law and other related disciplines
Cartoonist	Same	Creative Writing/Art / Graphic Design/Speech/ Journalism/General Business/Business Law/ Drama/Sociology/Psychology and other related disciplines

Script Writer	Same	Journalism/English/ Creative Writing/Drama Mathematics/Music and other related disciplines
Program Director	Same	Typing/English/Accounting/ Bookkeeping/Speech/ Business Law/Creative Writing and other related disciplines
Projectionist	Same	Science/Mathematics/ General Business/Power Mechanics and other related disciplines
Advertising Worker	Same/Type	Typing/General Business/ Psychology/Sociology/ Art/Graphic Art/and other related disciplines
Newspaper Vender	Same	Typing/General Business/ Accounting/Bookkeeping and other related disciplines
Jobber	Same/Type	Typing/General Business/ Business Law/Economics/ Accounting/Bookkeeping and other related disciplines
Advertising Copywriter	Same	Same basic disciplines as an Advertising Worker
Typesetter	Same	Typing/Office Practice/ Clerical/Filing/Business Machines/Shorthand and other related disciplines
Electrotypers	Same	Same basic disciplines as a Typesetter
Stereotypers	Same	Same basic disciplines as a Typesetter
Photoengravers	Same	Chemistry/Science/Typing/ Art and other related disciplines
Cameramen	Same	Same basic disciplines as a Photoengraver

Pressman	Same	Mathematics/Science/ Typing/Power Mechanics and other related disciplines
Lithographer	Same	Mathematics/Typing/Health Science/Power Mechanics and other related disciplines
Book Binder	Same	Same basic disciplines as a Pressman
Film Editor	Same	English/Power Mechanics/ Speech/General Business/ Mathematics/Science/ Chemist and other related disciplines
Newsboy	Same	Same basic disciplines as a Newspaper Vender
Proof Reader	Same	Typing/English/Art/ Foreign Language/ Psychology/Science/ Sociology/Mathematics and other related disciplines
Journalist	Same/Type	English/Creative Writing Art/Foreign Language/ Typing/Speech and other related disciplines
Technical Writer	Same/Type	Same basic disciplines as a Journalist except heavy emphasis in field where writing is taking place
Messenger	Same	General basic disciplines
Compositors	Same	Typing/English/Foreign Language/Power Mechanics/ Mathematics/Creative Writing/and other related disciplines
Linotype Operator	Same	Same basic disciplines as a Compositor
Inkman	Same	Same basic disciplines as a Compositor



Station Master	Same	General Business/ Accounting/Bookkeeping/ Typing/Algebra/Power Mechanics and other related disciplines
Disk Jockey	Same	Music/Art/World Geography/Speech/Algebra/ General Business/Typing / Sociology/Psychology and other related disciplines
Public Affairs Director	Same	Sociology/Psychology/ Accounting/General Business/Business Law/ Economics/Typing/ Mathematics and other related disciplines
Educational Director	Same	Same basic disciplines as a Public Affairs Director
Schedule Manager	Same/Type	Economics/Sociology/ Psychology/Business Mathematics/Typing/ Accounting/General Business/Filing/and other related disciplines
Stage Manager	Same/Type	Art/Drama/Speech/ Music/English/Creative Writing and other related disciplines
Lighting Engineer	Same	Mathematics/General Business/Typing/Building Construction and Maintenance/Blueprint Reading/and other related disciplines
Producer	Same/Type	English/Creative Writing/ General Business/Accounting/ Art/Music/Drama and other related disciplines
Director	Same/Type	Same basic disciplines as a Producer
Telephone Operator	Same/Type	Speech/General Business/ Business Mathematics/ Office Practice/Filing and other related disciplines

Sound Effect Technician	Same	Chemistry/Science/Art/ Music/Drama/Power Mechanics/Building Construction/Maintenance/ Typing/and other related disciplines
Repairman	Same/Type	General Business/Typing Science/Power Mechanics and other related disciplines
Writer	Same/Type	Drama/Foreign Language/ English/Creative Writing/ Typing and other related disciplines
Monitor	Same	Science/Chemistry/ Algebra/Drama/Creative Writing/Typing/and other related disciplines
Editorial Associate	Same	Same basic discipline as an Editor
Circulation Manager	Same	General Business/ Filing/Accounting/ Business Law/Mathematics/ Typing/Economics/and other related disciplines
Publisher	Same/Type	Same basic disciplines as an Editor
Foreign Editor	Same	Same basic disciplines as an Editor
Editorial Layout	Same	Same basic disciplines as an Reporter
Research Editor	Same/Type	Same basic disciplines as an Editor
Cartographer	Same	Same basic disciplines as a Sound Effect Technician
Mailers	Same	Typing/Mathematics/ General Business/Filing/ Office Practice/Clerical/ and other related disciplines

Installer	Same	Typing/Building Construction/Maintenance/ General Business/and other related disciplines
Linesman	Same	Same basic disciplines as an Installer
Insulating Corker	Same	Same basic disciplines as an Installer
Cable Splicer	Same	Same basic disciplines as an Installer
Maintenance Worker	Same	Same basic disciplines as a Linesman

Hospitality and Recreation Occupational Cluster
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<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Camera Girl	Same/Type	Science/Chemistry/ Physical Science/ Art/Algebra and other related disciplines
Tourist Director	Same	Speech/Geography/ Mathematics/Art/Gen- eral Business/Typing/ Office Practice/Of- fice Machines and other related disciplines
Golf Club Manager	Same	Speech/Science/Chem- istry/Typing/Gener- al Business/Office Practice/Accounting/ and other related disciplines
Theater Manager	Same	Science/Typing/Chem- istry/Bookkeeping/ Accounting/and other related disciplines
Booking Agent	Same/Type	Bookkeeping/Speech/ Accounting/Typing/ and other related disciplines
Hobby Shop Manager	Same	Office Practice/Ac- counting/Bookkeeping/ Typing/and other related disciplines
Business Agent†	Same/Type	General Business/ Bookkeeping/Typing/ Accounting/ and other related disciplines
Advance Man	Same/Type	Same basic courses as a Business Agent

Recreation Center Director	Same	Physical Education/ Typing/Power Mechan- ics/General Business/ and other related disciplines
Ticket Seller	Same	Filing/Speech/Office Machines/Bookkeeping/ Accounting and other related disciplines
Travel Counselor	Same	Geography/History/ Speech/Sociology/ Psychology/General Business/Typing/ Foreign Language and other related disciplines
Club Membership Salesman	Same/Type	General Business/ Speech/Typing/Office Practice/and other related disciplines
Recreation Director	Same	Same as Recreation Center Director
Porter	Same	General Business/ Typing/Mathematics/ and other related disciplines
Charwoman	Same	Home Economics/ Typing/General Bus- iness/and other re- lated disciplines
Janitor	Same	Science/Chemistry/ General Business/ Health/Typing/ and other related disciplines
Floor Waxer	Same	Same basis require- ments as Janitor
Wall Washer	Same	Same basic require- ments as Janitor
Hotel Manager	Same	Speech/Commercial Home Economics/Hotel and Motel Management/

		General Business/ Accounting/Typing and other related disciplines
Motel Manager	Same	Same basic require- ments as Hotel Manager
Window Washer	Same	Science/Chemistry/ Power Mechanics/ Health/General Business and other related disciplines
Traveling Manager	Same	Speech/General Bus- iness/Bookkeeping/ Typing/Accounting/ Office Practice/ and other related disciplines
Convention Manager	Same	Typing/Office Prac- tice/Bookkeeping/ Office Machines/ Speech and other related disciplines
Bell Captain	Same	Foreign Language/ Speech/General Business/Typing/ and other related disciplines
Baggage Porter	Same	Same basic require- ments as Bell Captain
Room Service Clerk	Same	Same basic require- ments as Bell Captain
Checkroom Attendant	Same	Filing/General Bus- iness and other re- lated disciplines
Apartment House Manager	Same	General Business/ Typing/Business Mathematics/Book- keeping and other related disciplines

Chef	Same	Foreign Language/ Accounting/Chem- istry/Commercial Home Economics/ Science and other related disciplines
Athletic Director	Same	Physical Education/ General Business/ Typing and other related disciplines
Bar Tender	Same	Science/Chemistry/ Typing/Health/Gen- eral Business/Of- fice Practice and other related disciplines
Cook	Same/Type	Commercial Home Economics/Typing/ Foreign Language/ and other related disciplines
Florist	Same	Science/Chemistry/ Speech/Typing/Gen- eral Business/Book- keeping and other related disciplines.
Waiter	Same	Commercial Home Economics/General Business/Speech and other related disciplines
Waitress	Same	Same basic require- ments as Waiter
Elevator Operator	Same	General Business/ Science and other related disciplines
Gardener	Same	Science/Chemistry/ Physical Science/ Mathematics/General Business and other related disciplines
Dish Washer	Same	Commercial Home Economics/Science/ and other related disciplines

Mail Clerk

Same

Filing/Typing/  
General Business/  
Mathematics and  
other related  
disciplines

1523



Personal Service
Occupational Cluster

<u>Occupation</u>	<u>Indepth Study</u>	<u>Discipline</u>
Street Photographer	Same	Chemistry/Science/ General Business
Funeral Director	Same	Chemistry/Science/ General Business/ Accounting/Book- keeping/Typing/ Algebra
Barber	Same	Science/Algebra/ Chemistry/General Business/Mathematics
Cemetary Manager	Same	General Business/ Bookkeeping/Mathe- matics/Power Mechanics
Repair Estimator	Same/Type	Accounting/General Business/Power Mechanics/and other related disciplines
Mortician Investigator	Same	Accounting/Business Law/Typing/Chemistry/ Science/and other related disciplines
Service Establishment Attendant	Same/Type	Power Mechanics/and other related disciplines
Embalmer	Same	Same general requirements as Funeral Director
Lady Attendant(Funeral)	Same	Same basic require- ments as for Funeral Director
Lawyer	Same/Type	Foreign Language/ Speech/Political Science/Sociology/ and other related disciplines

Criminologist	Same	Same basic requirements as Lawyer
Animal Trainer	Same/Type	Science/Chemistry/Health/and other related disciplines
Shoe Repairman	Same	Science/Power Mechanics/and other related disciplines
Watch Repairman	Same	Science/Power Mechanics/Chemistry/and other related disciplines
Manicurist	Same	Science/Health/Nursing Assistant/Medical Office Practice/Chemistry/and other related disciplines
Wig Dresser	Same	Science/Health/Home Economics/Chemistry and other related disciplines
Masseur	Same	Science/Health/Chemistry/Biology/Nursing Assistant/and Medical Office Practice/and other related disciplines

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Teaching Children Values Through Unfinished Stories. Educational Activities, 1 12" Record, 33 1/3 RPM.

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The A. B. C.'s Of Getting And Keeping A Job. Eyegate, 1970, 8 Color Filmstrips, 4 Cassettes, Gr. 7-12.

The A. B. C.'s of Getting and Keeping A Job	Labor Unions On The Job
Applying for the Job You Want	Preparing for the Job You Want
Budgeting Your Money	Quizstrip
Health Rules to Follow	

America's Labor Force. Eyegate, 1971, 6 Color Filmstrips, 6 Cassettes, Gr. 7-12.

Airline Pilots Association	International Ladies Garment Workers Union
American Federation of Musicians	United Automobile Workers
International Brotherhood of Electrical Workers	United Federation of Teachers

Ancient Crafts-Modern Times. Eyegate, 1971, 6 Color Filmstrips, 6 Cassettes, Gr. 5-12.

The Cabinetmaker-Sculpture in Wood	The Potter-Beauty in Clay
The Glassmaker-Transparent Creations	The Silversmith-Metallic Art
The Graphics Designer-Art in Print	The Textile Designer- Woven Art

Basic Office Practices and Procedures. Eyegate, 1972, 6 Color Filmstrips, 3 Cassettes, Gr. 9-12.

Basic Office Machines	Dealing With People
The Working World of a Secretary	Helping Your Boss Get More Done
Memos, Mail and the Telephone	Filing and Basic Office Systems

Building Trade Workers. Eyegate. 1972, 10 Color Filmstrips, 5 Cassettes, Gr. 9-12.

The Exterior Painter	The Plaster
The Interior Painter	The Sider
The Roughing Carpenter	The Brick Layer
The Finishing Carpenter	The Plumber
The Concrete Block Layer	The Roofer

Hospital Job Opportunities. Eyegate, 1972, 10 Color  
Filmstrips, 5 Cassettes, Gr. 9-12.

Inhalation Therapy  
Technician  
X-Ray Technician  
Nuclear Technician  
Trainee  
Medical Assistant  
Maintenance Mechanic  
and Electrician and  
Custodian

Nurse  
Hospital Food Service  
Workers  
Diet Clerk and Fry Cook  
Hospital Administrative  
Jobs  
Nurses' Aide.

The World of Work: Vocational Opportunities. Eyegate, 1971

Cook  
Sheet Metal Worker  
Receptionist  
Printer  
Electrician  
Data Processing Clerk  
What Is Your Future  
In The Changing World  
Of Work

Real Estate Sales  
Medical Assistant  
Automobile Mechanic  
TV and Radio Repair  
Tool and Die Maker  
Sheet Metal Worker-Building  
Trades  
Automotive Sales Representative

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Alphabetizing Rules  
Charge and Transfer Methods  
Types of Equipment

Data Processing and  
Microfilming  
Other Filing Systems

Careers In Aerospace. Eyegate, 1970, 12 Color Film-  
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Aerospace Sales  
Aircraft Maintenance and  
Food Service  
Aircraft Maintenance Mechanic  
Air Freight Agent  
Airline Ticket Agent  
Control Tower Operator  
Stewardess

Flight Engineer  
Jet Captain  
Jet Engine Mechanic  
Passenger Service  
Representative  
Skycap and Baggage  
Handler

Don't Just Stand There! Do Something. Eyegate, 1972,  
4 Color Filmstrips, 2 Cassettes, Gr. 7-10.

Air Pollution  
Land Pollution

Water Pollution  
Fighting Pollution

Education For Occupations. Eyegate, 1972, 8 Color Film-  
strips, 4 Cassettes, Gr. 9-12.

Working In A Service  
Station  
Working In A Supermarket  
Working In The Printing  
Industry  
Working In Food Services

Working With Business  
Machines  
Working In Building  
Maintenance  
Working In Manufacturing  
Working In A Hospital

Finding Your Job. Eyegate, 1972, 6 Color Filmstrips,  
3 Cassettes, Gr. 9-12.

Working For Someone Else  
What Can You Do  
Job Shopping

The Job Interview  
Getting A Better Job  
Finding A Career



## Cassettes

American Occupations Series, Jonesboro, Ark.; Educational  
Sensory Programming, 99 Tapes, (2 Lessons on Each Tape, Each  
Lesson 15 Minutes) n. d.

Titles are:

1. "Tomorrow's Jobs-Part I"  
"Tomorrow's Jobs-Part II"
2. "Accountant"  
"Advertising Workers"
3. "Marketing Research Workers"  
"Personnel Workers"
4. "Public Relations Workers"  
"Protestant Clergyman"
5. "Rabbis"  
"Roman Catholic Priest"
6. "Foresters"  
"Forestry Aides"
7. "Range Managers"  
"Employment Counselors"
8. "Rehabilitation Counselors"  
"School Counselors"
9. "Engineering"  
"Types of Engineering"
10. "Physicians"  
"Osteopathic Physicians"
11. "Dentists"  
"Dental Hygienists"
12. "Dental Assistant"  
"Dental Lab Technician"
13. "Registered Nurses"  
"Licensed Practical Nurses"
14. "Optometrists"  
"Pharmacists"
15. "Podiatrists"  
"Chiropractors"

16. "Occupational Therapist"  
"Physical Therapist"
17. "Speech Pathologist and Audiologist"  
"Medical Laboratory Worker"
18. "Radiologic Technologists"  
"Medical Record Librarian"
19. "Dieticians"  
"Hospital Administrator"
20. "Sanitarians"  
"Veterinarians"
21. "Mathemitiicians"  
"Statisticians"
22. "Geologist"  
"Geophysicista"
23. "Meterologists"  
"Oceanographers"
24. "Life Scientists"  
"Biochemists"
25. "Chemists"  
"Physicists"
26. "Astronomers"  
"Actor-Actress"
27. "Dancers"  
"Musicians and Music Teachers"
28. "Singers and Singing Teachers"  
"Commercial Artists"
29. "Industrial Designer"  
"Interior Decorator"
30. "Anthropologists"  
"Economists"
31. "Geographer"  
"Historians"
32. "Political Scientists"  
"Sociologists"
33. "Kindergarten and Elementary School Teacher"  
"Secondary School Teacher"

34. "College and University Teachers"  
"Engineering Science"
35. "Draftsman"  
"Newspaper Reporter"
36. "Technical Writers"  
"Architects"
37. "College Placement Officer"  
"Home Economists"
38. "Landscape Architects"  
"Lawyers"
39. "Librarians"  
"Library Technicians"
40. "Models"  
"Photographers"
41. "Systems Analysts"  
"Programers"
42. "Psychologists"  
"Recreation Worker"
43. "Social Workers"  
"Surveyors"
44. "Urban Planners"  
"Managerial Occupations"
45. "Industrial Traffic Manager"  
"Purchasing Agent"
46. "Clerical Occupations"  
"Bookkeeping Workers"
47. "Cashiers"  
"Electronic Computer Operator"
48. "Office Machine Operators"  
"Shipping-Receiving Clerk"
49. "Stenographer-Secretary"  
"Typists"
50. "Telephone Operator"  
"Auto Parts Counter Man"
51. "Auto Salesman"  
"Auto Service Advisor"

52. "Insurance Agent-Broker"  
"Manufacturer's Salesman"
53. "Real Estate Salesmen-Broker"  
"Retail Trade Salesworker"
54. "Securities Salesman"  
"Wholesale Trade Workers"
55. "Barbers"  
"Cosmetologists"
56. "Cooks=Chefs"  
"Waiters-Waitresses"
57. "FBI Special Agents"  
"Police Officers"
58. "State Police Officers"  
"Fire Fighters"
59. "Hospital Attendants"  
"Building Custodian"
60. "Bricklayer"  
"Carpenter"
61. "Cement Mason"  
"Construction Laborer"
62. "Electricians"  
"Elevator Construction"
63. "Floor Covering Installers"  
"Glaziers"
64. "Lathers"  
"Marble Setters"
65. "Operating Engineers"  
"Painters and Paperhangers"
66. "Plasters"  
"Plumbers and Pipefitters"
67. "Roofers"  
"Sheet Metal Workers"
68. "Stonemasons"  
"Structural Steel Workers"
69. "Truckdriver"  
"Local Truckdriver"

70. "Routeman"  
"Intercity Busdriver"
71. "Local Busdriver"  
"Taxi Drivers"
72. "Machinists"  
"Machine Tool Operator"
73. "Tool and Die Maker"  
"Instrument Maker"
74. "Air Conditioning Mechanic"  
"Appliance Servicemen"
75. "Auto Body Mechanic"  
"Auto Mechanics"
76. "Business Machine Servicemen-Part I"  
"Business Machine Servicemen-Part II"
77. "Diesel Mechanics"  
"Electric Sign Servicemen"
78. "Farm Equipment Mechanic"  
"Industrial Machinery Repairman"
79. "Instrument Repairman"  
"Maintenance Electrician"
80. "Millwrights"  
"Radio-Television Technician"
81. "Truck and Bus Mechanic"  
"Vending Machine Mechanic"
82. "Watch Repairman"  
"Composing Room Occupations"
83. "Photoengravers"  
"Electro-Sterotypers"
84. "Printing Pressmen"  
"Lithographics"
85. "Motion Picture Projectionist"  
"Photographic Laboratory Occupation"
86. "Petroleum Occupations-Part I"  
"Petroleum Occupations-Part II"
87. "Pilots-Co-pilot Part I"  
"Pilots-Co-pilot Part II"

88. "Flight Engineers"  
"Stewardess"
89. "Aircraft Mechanics"  
"Airplane Dispatcher"
90. "Air Traffic Controller"  
"Ground Radio Operator"
91. "Radio-TV Announcer"  
"Broadcast Technician"
92. "Locomotive Engineer"  
"Conductor"
93. "Brakeman"  
"Telegrapher"
94. "Telephone Craftsman"  
"Telephor. Equipment Installer"
95. "Lineman-Cable Splicer"  
"Telephone Repair-Installer"
96. "Bank Clerk"  
"Teller"
97. "Hotel Clerk"  
"Hotel Manager"
98. "Federal Civilian Government Worker-Part I"  
"Federal Civilian Government Worker-Part II"
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"Postal Clerks"

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Development of Communication. Encyclopedia Britannica Educational Corp., n. d. Black/White, Sound, 10 Min., Gr. 7-12.

Development of Transportation. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 11 Min., Gr. 7-12.

The Doctor. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 17 Min., Gr. 7-9.

Don't Get Angry. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 12 Min., Gr. 4-9.

Getting a Promotion. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 14 Min., Gr. 7-12.

Getting the News. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 18 Min., Gr. 7-9.

Health in Our Community. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 14 Min., Gr. 7-9.

The Industrial Revolution. Encyclopedia Britannica Educational Corporation, n. d. Color, Sound, 17 Min., Gr. 7-9.

The Miner. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 15 Min., Gr. 7-9.

Planning Your Career. Encyclopedia Britannica Educational Corp., n. d. Black/White, Sound, 16 Min., Gr. 7-12.

The Rise of Big Business. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 27 Min., Gr. 7-12.

The Rise of Labor. Encyclopedia Britannica Educational Corp., n. d. Color, Sound, 30 Min., Gr. 7-12.

Working Together. Encyclopedia Educational Corp., n. d. Color, Sound, 12 Min., Gr. 7-12.

You Can Go A Long Way. Encyclopedia Britannica Educational Corp., n. d. Black/White, Sound, 22 Min., Gr. 7-9.

Filmstrips:

An Age of Change. McGraw, 40 Frames, Color, Gr. 7-9.

At Home And In The Public. McGraw, 40 Frames, Color, Gr. 7-12.

At School. McGraw, 40 Frames, Color, Gr. 7-12.

Dating. McGraw, 40 Frames, Color, Gr. 7-9.

Dining Out. McGraw, 42 Frames, Color, Gr. 7-12.

Do You Like Flowers? Eyegate, 42 Frames, Color, Gr. 7-12.

Do You Like Sports? Eyegate, 42 Frames, Color, Gr. 7-12.

Do You Love Animals? Eyegate, 42 Frames, Color, Gr. 7-12.

Enjoying Today. Encyclopedia Britannica, 50 Frames, Color, Gr. 7-12.

Future in Hand. McGraw, 40 Frames, Black/White, Gr. 7-12.

Family Portrait. McGraw, 42 Frames, Black/White, Gr. 7-12.

How About Being a Key Punch Operator? Eyegate, 41 Frames, Color, Gr. 7-12.

How About Being An Electronics Assembler? Eyegate, 40 Frames, Color, Gr. 7-12.

How About Office Work? Eyegate, 40 Frames, Color, Gr. 7-12.

How To Take a Test. Society for Visual Education, 40 Frames, Color, Gr. 6-12.

It Pays To Save. McGraw, 42 Frames, Colors, Gr. 4-12.

It's A Date. McGraw, 40 Frames, Black/White, Gr. 7-12.

Leaders and Followers. Encyclopedia Britannica, 50 Frames, Color, Gr. 7-12.

Parties. McGraw, 40 Frames, Color, Gr. 7-12.

Preparing for Daily Work. McGraw, 40 Frames, Color, Gr. 7-9.



Preparing For Test. McGraw, 42 Frames, Color, Gr. 7-9.

Preparing to Study. Society for Visual Education, Inc., 42 Frames, Color, Gr. 5-12.

Oldest in the Class-My Teacher. Troll, 40 Frames, Color, Gr. 6-9.

Seeing Double. McGraw, 42 Frames, Black/White, Gr. 7-12.

Short Arc Welding. Linde, 50 Frames, Color, Gr. 8-12.

Starting Junior High School. McGraw, 42 Frames, Color, Gr. 7-9.

Table Manners. McGraw, 40 Frames, Color, Gr. 7-12.

Want to work in a Laundry? Eyegate, 42 Frames, Color, Gr. 7-12.

What Are Job Families? Society for Visual Education, Inc., 42 Frames, Color, Gr. 4-8.

What Do You Like To Do? Society for Visual Education, Inc., 42 Frames, Color, Gr. 1-9.

What Is a Job? Society for Visual Education, Inc., 42 Frames, Color, Gr. 6-9.

What Good is School? Society for Visual Education, Inc., 42 Frames, Color, Gr. 1-9.

What Is A Family? Society for Visual Education, Inc., 40 Frames, Color, Gr. 1-9.

What is Behavior? McGraw, 42 Frames, Color, Gr. 7-12.

What to Ask, How and Where to Find the Answer? Society for Visual Education, Inc., 42 Frames, Color, Gr. 7-12.

Who Are You? Society for Visual Education Inc., 40 Frames, Color, Gr. 1-9.

Why Study? Society for Visual Education, Inc., 42 Frames Color, Gr. 7-12.

With This Ring. McGraw, 40 Frames, Black/White, Gr. 7-12.

Would You Like Hospital Work? Eyegate, 42 Frames, Color, Gr. 7-12.

Would You Like to Be a Cashier? Eyegate, 42 Frames, Color, Gr. 7-12.

Would You Like To Sell? Eyegate, 42 Frames, Color, Gr. 7-12.

You and Your Grooming. McGraw, 34 Frames, Color, Gr. 7-12.

Your Clothing. McGraw, 42 Frames, Color, Gr. 7-12.

Your Face. McGraw, 41 Frames, Color, Gr. 7-12.

Your Figure. McGraw, 40 Frames, Color, Gr. 7-12.

Your Hair. McGraw, 41 Frames, Color, Gr. 7-12.

Your Hands and Feet. McGraw, 40 Frames, Color, Gr. 7-12.

Your School Publications. Jam Handy, 6 Filmstrips, 42 Frames Each, Color, Gr. 7-12.

Film Strips and Disk Recordings:

Advanced Study Habits, Attitudes and Skills, YLP Materials Corporation, 6 Filmstrips, Color, 6 10" Records, 33 1/3 RPM., Gr. 6-9.

Basic Study Habits, Attitudes and Skills. YLP Material Corporation, 6 Filmstrips, Color, 6 10" Records, 33 1/3 RPM., Gr. 4-7.

Children Face Social Realities. Eyegate, 2 Filmstrips, Color, 1 10" Record, Gr. 4-7.

Choosing Your Career. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

Dating Topics for Older Teens. Society for Visual Education, Inc., 4 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

Developing Basic Values. Society for Visual Education, Inc., 4 Filmstrips, Color, 3 12" Records, 33 1/3 RPM., Gr. 7-12.

Developing Your Study Skills. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

Dropping Out: Road to Nowhere. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 8-12.

Failure: A Step Toward Growth. Harcourt, 2 Filmstrips, Color, 2 12 " Records, 33 1/3 RPM., Gr. 7-12.

Four Who Quit. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 8-12.

Going Places in the City. Coronet, 6 Filmstrips, Color, 3 12" Records, 33 1/3 RPM., Gr. 4-8.

Growing Into Manhood: A Middle School Approach. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 8-12.

Growing Into Womanhood: A Middle School Approach. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 8-12.

High School Course Selection and Your Career. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-10.

Home Services. Society for Visual Education, Inc., 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 3-9.

How To Succeed In High School-By Trying. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-9.

Hung Up On Homework? Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

I Never Looked At It That Way Before. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

I Wish I'd Known That Before I Went To College. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

If You're Not Going to College. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

Love and Marriage. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 8-12.

Older Teens and Family Relationships. Society for Visual Education, Inc., 4 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 8-12.

Popularity Problems Of Older Teens. Society for Visual Education, Inc., 4 Filmstrips, Color, 4 12" Records, 33 1/3 RPM., Gr. 8-12.

Popularity Problems of Young Teens. Society for Visual Education, Inc., 4 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 6-9.

Role of The Counselor In The Secondary School. Harcourt, 1 Filmstrip, Color, 1 12" Record, 33 1/3 RPM., Gr. 7-12.

Should You Go To College? Harcourt, 1 Filmstrip, Color, 1 12" Record, 33 1/3 RPM., Gr. 8-12.

Social Problems. Society for Visual Education, Inc., 4 Filmstrips, Color, 1 12" Record, 33 1/3 RPM., Gr. 7-12.

Somebody's Cheating. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

Studying For Success. Eyegate, 11 Filmstrips, Color, 5 12" Records, 33 1/3 RPM., Gr. 7-12.

The ABC's Of Getting And Keeping A Job. Eyegate, 4 Filmstrips, Color, 4 Cassettes, Gr. 7-12.

The Tuned Out Generation. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 8-12.

Think of Others First. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 8-12.

Values for Teenagers. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

You and The Law. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

Your First Year In High School. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

You're More Than a Score. Harcourt, 2 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

Young Teenagers And Family Relationships. Society for Visual Education, Inc., 4 Filmstrips, Color, 2 12" Records, 33 1/3 RPM., Gr. 7-12.

#### Tape Recordings of Occupations:

Accountant. Imperial, 1 Cassette, Gr. 7-12.

Accountant, Advertising Workers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Advertising. Classroom, 1 Cassette, Gr. 7-12.

Advertising. Imperial, 1 Cassette, Gr. 7-12.

Agriculture. Classroom, 1 Cassette, Gr. 7-12.

Air Conditioning and Refrigeration. Classroom, 1 Cassette, Gr. 7-12.

Air Conditioning Mechanic: Appliance Serviceman. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Air Traffic Controller: Ground Radio Operator. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Aircraft Mechanics: Airplane Dispatcher. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Anthropologists: Economists. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Appliance Serviceman. Imperial, 1 Cassette, Gr. 7-12.

Architect. Imperial, 1 Cassette, Gr. 7-12.

Architecture, Classroom, 1 Cassette, Gr. 7-12.

Artistic Interest Occupations. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Assembler. Imperial 1 Cassette, Gr. 7-12.

Astronomers: Actor-Actress. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Auto Body Repairman: Auto Mechanics. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Auto Mechanic. Imperial, 1 Cassette, Gr. 7-12.

Auto Salesman: Auto Service Advisor. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Bank Clerk: Teller. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Barbers: Cosmetologists. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Beauty Culture. Classroom, 1 Cassette, Gr. 7-12.

Biologist. Imperial, 1 Cassette, Gr. 7-12.

Brakeman: Telegrapher. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Bricklayer: Carpenter. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Broadcasting. Classroom, 1 Cassette, Gr. 7-12.

Business: How It Works. Wollensak, 1 Cassette, Gr. 7-12.

Business Machine Servicemen-Part I and Business Machines Servicemen-Part II. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Careers In Science. University of Colorado, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Carpenter. Imperial, 1 Cassette, Gr. 7-12.

Cashiers: Electronic Computer Operators. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Cement Mason: Construction Laborer. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Chemist. Imperial, 1 Cassette, Gr. 7-12.

Chemists: Physicists. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Chief Engineer. Imperial, 1 Cassette, Gr. 7-12.

Clerical Interest Occupations. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Clerical Occupations: Bookkeeping Workers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

College and University Teachers: Engineering Science. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

College Placement Officer: Home Economics. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Commercial Artist. Imperial, 1 Cassette, Gr. 7-12.

Commercial Photographer. Imperial, 1 Cassette, Gr. 7-12.

Computational Interest Occupational. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Computers. Classroom, 1 Cassette, Gr. 7-12.

Cook-Chief: Waiters-Waitresses. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Cosmetologist. Imperial, 1 Cassette, Gr. 7-12.

Counselor. Imperial, 1 Cassette, Gr. 7-12.

Dancers: Musicians and Music Teachers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Dental Assistant: Dental Laboratory Technician. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Dental Hygienist. Imperial, 1 Cassette, Gr. 7-12.

Dental Technician. Imperial, 1 Cassette, Gr. 7-12.

Diesel Mechanics: Electric Sign Servicemen. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Dieticians: Hospital Administrator. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Draftsman. Imperial, 1 Cassette, Gr. 7-12.

Draftsman: Newspaper Reporter. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Education. Classroom, 1 Cassette, Gr. 7-12.

Electrician. Imperial, 1 Cassette, Gr. 7-12.

Electrician: Elevator Construction. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Electronic Technician. Imperial, 1 Cassette, Gr. 7-12.

Elementary Teacher. Imperial, 1 Cassette, Gr. 7-12.

Engineering. Classroom, 1 Cassette, Gr. 7-12.

Engineering: Types of Engineering. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Exploring The World Of Work. Wilson, 6 Cassettes, Gr. 7-12.

Farm Equipment Mechanic: Industrial Machinery Repairman. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

FBI Special Agents: Police Officers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Federal Civil Government Worker-Part I: Federal Civil Government Worker-Part II. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

The Fireman and His Work. Wollensak, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Fireman-Water Tender. Imperial, 1 Reel, 3 3/4 IPS., Gr. 7-12.



Flight Engineers: Stewardesses. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Floor Covering Installer: Glaziers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Food Production. Classroom, 1 Cassette, Gr. 7-12.

Foresters: Forestry Aids. Educational, 1 Cassette, Gr. 7-12.

Geographer: Historian. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Geologist: Geophysicists. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Grocery Store Clerk. Imperial, 1 Cassette, Gr. 7-12.

Heavy Machine Operator. Imperial, 1 Cassette, Gr. 7-12.

Health Careers. Classroom, 1 Cassette, Gr. 7-12.

Hospital Attendants: Building Custodians. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Hotel Clerk: Hotel Manager. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Hotel-Motel. Classroom, 1 Cassette, Gr. 7-12.

How To Get A Job. Wollensak, 1 Cassette, Gr. 7-12.

Industrial Designer: Interior Decorator. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Industrial Traffic Manager: Purchasing Agent. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Instrument Repairman: Maintenance Electrician. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Insurance Agent-Broker: Manufacturer's Salesman. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Insurance Broker. Imperial, 1 Cassette, Gr. 7-12.

Introducing The World Of Work-Part I. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Johnny Visits the Farm. Classroom, 1 Cassette, Gr. 7-12.

Kindergarten-Elementary School Teacher: Secondary School Teacher. Classroom, 1 Cassette, Gr. 7-12.



Landscape Architects: Lawyers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Lathers: Marble Setters. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Laundry Routeman. Imperial, 1 Cassette, Gr. 7-12.

Lawyer. Imperial, 1 Cassette, Gr. 7-12.

Law. Classroom, 1 Cassette, Gr. 7-12.

Let's Learn About Banking. Wollensak, 1 Cassette, Gr. 7-12.

Let's Meet The Doctor. Wollensak, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Let's Meet The Nurse. Wollensak, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Let's Meet The Teacher. Wollensak, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Librarian. Imperial, 1 Cassette, Gr. 7-12.

Librarians: Library Technicians. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Life Scientists: Biochemists. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Lineman-Cable Splicer: Telephone Repair-Installer. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Local Busdriver: Taxi Drivers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Local Truck Driver. Imperial, 1 Cassette, Gr. 7-12.

Locomotive Engineer: Conductor. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Machinist. Imperial, 1 Cassette, Gr. 7-12.

Machinist: Machine Tool Operator. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Mail Carriers: Postal Clerks. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Marketing Research Workers: Personnel Workers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Mathematicians: Statisticians. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Mechanical Interest Occupation. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Medical Technician. Imperial, 1 Cassette, Gr. 7-12.

Medical X-Ray Technician. Imperial, 1 Cassette, Gr. 7-12.

Meteorologist: Oceanographers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Millwrights: Radio-TV Technician. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Models: Photographers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Motion Picture Projectionist: Photographic Laboratory Occupation. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Musician. Imperial, 1 Cassette, Gr. 7-12.

My Father Works. Wollensak, 1 Cassette, Gr. 7-12.

Nurse, Practical. Imperial, 1 Cassette, Gr. 7-12.

Nurse, Registered. Imperial, 1 Cassette, Gr. 7-12.

Occupational Therapist: Physical Therapist. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Oceanography. Classroom, 1 Cassette, Gr. 7-12.

Office Machine Operator: Shipping-Receiving Clerk. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Operating Engineers: Painters and Paperhangers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Optometrists: Pharmacists. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Our Friend The Policeman. Classroom, 1 Cassette, Gr. 7-12.

Outdoor Interest Occupations. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Persuasive Interest Occupations. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Petroleum Occupations-Part I: Petroleum Occupations-Part II. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Photo Engravers: Electro-Sterotypers. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Photography. Classroom, 1 Cassette, Gr. 7-12.

Physician. Imperial, 1 Cassette, Gr. 7-12.

Physicians: Osteopathic Physicians. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Pilot-Co-pilot-Part I: Pilot-Co-pilot-Part II. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Pilot-Co-pilot. Imperial, 1 Cassette, Gr. 7-12.

Planning Beyond High School. Wilson, 6 Cassettes, Gr. 7-12.

Plasterers: Plumbers and Pipe Fitters. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Plumber-Pipefitter. Imperial, 1 Cassette, Gr. 7-12.

Podiatrist: Chiropractor. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Policeman. Imperial, 1 Cassette, Gr. 7-12.

The Policeman And His Work. Wollensak, 1 Cassette, Gr. 7-12.

Political Scientists: Sociologist. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Printer. Imperial, 1 Cassette, Gr. 7-12.

Printing and Engraving. Classroom, 1 Cassette, Gr. 7-12.

Printing Pressmen: Lithographers. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Profit: Business Goal. Wollensak, 1 Cassette, Gr. 7-12.

Programmer. Imperial, 1 Cassette, Gr. 7-12.

Psychologists: Recreation Workers. Educational Sensory Programming. 1 Cassette, Gr. 7-12.

Public Relations. Imperial, 1 Cassette, Gr. 7-12.

Public Relations: Protestant Clergyman. Educational Sensory Programming, 1 Cassette, 7-12.

Radio Officer. Imperial, 1 Reel 3 3/4 IPS., Gr. 7-12.

Radiologic Technologist: Medical Record Librarian. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Radio-TV Announcer: Broadcast Technician. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Ranger Manager: Employment Counselor. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Real Estate Broker. Imperial, 1 Cassette, Gr. 7-12.

Real Estate Salesman-Broker: Retail Trade Salesworker. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Registered Nurse: Licensed Practical Nurse. Educational Sensory Programming, 1 Cassette

Rehabilitation Counselors: School Counselors. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Repair Service. Classroom, 1 Cassette, Gr. 7-12.

The Restaurant Business. Classroom, 1 Cassette, Gr. 7-12.

Retail Saleswoman. Imperial, 1 Cassette, Gr. 7-12.

Roofers: Sheet Metal Workers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Routemen: Intercity Busdrivers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Sanitary Workers: Veterinarians. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Scientific Interest Occupations. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Scientific Research. Classroom, 1 Cassette, Gr. 7-12.

Secondary Teacher. Imperial, 1 Cassette, Gr. 7-12.

Secretarial Careers. Classroom, 1 Cassette, Gr. 7-12.

Secretary. Imperial, 1 Cassette, Gr. 7-12.

Securities Salesman: Wholesale Trade Workers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Selling. Classroom, 1 Cassette, Gr. 7-12.

Ship's Captain. Imperial, 1 Reel 3 3/4 IPS., Gr. 7-12.

Singers and Singing Teachers: Commercial Artists. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Social Service Interest Occupations. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.

Social Work. Classroom, 1 Cassette, Gr. 7-12.

Social Worker. Imperial, 1 Cassette, Gr. 7-12.

Social Workers: Survivors. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Speech Pathologists and Audiologists: Medical Laboratory Workers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

State Police Officers: Firefighters. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Stationary Engineer. Imperial, 1 Cassette, Gr. 7-12.

Stenographer-Secretary-Typist. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Stewardess. Imperial, 1 Cassette, Gr. 7-12.

Stonemason: Structural Steel Worker. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Switchboard Operator. Imperial, 1 Cassette, Gr. 7-12.

Systems Analysis: Programers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Technical Writers. Imperial, 1 Cassette, Gr. 7-12.

Technical Writers: Architects. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Telephone Craftsman: Telephone Equipment Installers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Telephone Operator: Automobile Parts Counter Man. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Tomorrow's Jobs-Part I: Tomorrow's Jobs-Part II. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Tool and Die Maker: Instrument Maker. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Tool and Die Maker. Imperial, 1 Cassette, Gr. 7-12.

Transportation. Classroom, 1 Cassette, Gr. 7-12.

Truck and Bus Mechanic: Vending Machine Mechanic. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Truckdrivers: Local Truckdrivers. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Television and Radio Serviceman. Imperial, 1 Cassette, Gr. 7-12.

Urban Planners: Managerial Occupations. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Watch Repairman: Composing Room Occupations. Educational Sensory Programming, 1 Cassette, Gr. 7-12.

Women in the World Of Work. Wilson, 1 Reel, 3 3/4 IPS., Gr. 7-12.