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ABSTRACT

The career exploration program for grades 9 through 10, as part of a comprehensive K through 10 career development program, attempts to develop an awareness of and appreciation for work, extend knowledge of the variety of career opportunities, and provide experiences in career areas of individual interest. The document, a collection of materials consisting of student learning experience packets and a resource list, is designed to introduce students to occupations in photography. The introduction defines the career area, and presents course objectives, course strategy, procedures, evaluation, exploration trips, and a suggested time table. The learning activities are organized into objectives, activities, and resources, and include the following learning activities: discussion, role playing, self-analysis quiz, job performance rating, worksheets, interest surveys, examination of equipment, interviews, field trips, job analysis, construction of pin-hole cameras and darkroom boxes, film evaluation, and discussion of career maturity. The appendix contains suggestions and procedures for field trips and exploration trips, forms for exploration trip permission and report, job titles, and resources. (JB)

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CAREER EXPLORATION

9 - 10

EXPLORING CAREERS

IN

PHOTOGRAPHY

Revised Edition
1973

CAREER DEVELOPMENT K - 10
CINCINNATI PUBLIC SCHOOLS

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CAREER EXPLORATION
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GRADES 9-10
EXPLORING CAREERS
IN
PHOTOGRAPHY

Revised Edition

1973

CAREER DEVELOPMENT

The Career Development Program responds to the needs of students, taxpayers, and employers for the public schools to provide personal, social, and economic relevance in the educational process. It is an integral part of the educational process essential to the development of all students.

The Career Development components, which are Career Motivation (K-6), Career Orientation (7-8) and Career Exploration (9-10), develop an awareness and appreciation for work, extend knowledge of the variety of career opportunities, and provide experiences in career areas of individual interest. These goals are accomplished through a curriculum based on pupil activities involving simulation, role playing, and individual investigation. These activities require that administrators and teachers develop a new level of working relationships with community resources such as public institutions, business, labor, and industry.

Every individual's right to learn what he or she needs in order to be a producing, participating member of society is a fundamental responsibility of education. Each individual also has a right to self-fulfillment. Career Development, presented as inseparable elements inherent within every level and subject area of the school curriculum, provides each student with the skills and insights to recognize and pursue goals of personal significance. As a result of this program students will increase their abilities to make well-informed and experience-based decisions related to their personal life, school program, and career selection.



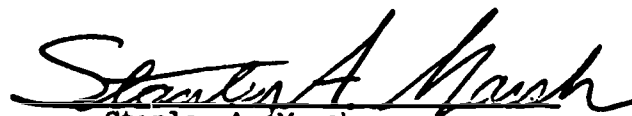
Donald R. Waldrip, Superintendent
Cincinnati Public Schools

CAREER EXPLORATION

Career Exploration is the 9th and 10th grade component of the Career Development Program. Its primary goal is to provide experiences related to career areas chosen by the student. Focus is on the student's perception of himself or herself in relation to the real world of career opportunities. Emphasis is on individualized and personalized activities and experiences.

The student chooses and studies a specific career area using skills and insights gained in earlier parts of the Career Development Program. Students explore occupations within the chosen area with particular attention to those most closely related to their own needs, interests, and abilities. They will experience some of the satisfactions, opportunities, limitations and frustrations peculiar to the various occupations.

Career Exploration is planned as the culmination of the Career Development Program. Successful exploratory experiences will enable the student to formulate and refine realistic and personally meaningful career goals. These experiences will also provide a basis for planning a course of studies in the 11th and 12th grades (and beyond) pursuing career goals.



Stanley A. Marsh
Administrative Assistant to
the Superintendent

FOREWORD

This manual is one of a series produced by the Cincinnati Public Schools as a part of a project designed to provide Career Exploration for students in grades 9 and 10.

It is designed to provide activities and information about an occupational area that will provide a more in-depth study than presented in Career Orientation in grades 7 and 8.

This is a tentative guide and has been developed for the purpose of field testing and revising based upon feedback from participating teachers.

This manual was developed by Ervin Schroeder, Schwab Junior High School and modified by Maridee Kessen, Aiken Senior High.

Jack Ford, an Instructional Consultant, conducted the curriculum development under the general supervision of Mr. Ralph E. Shauck, Coordinator Instructional Services.

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A. Definition of Career Area

Photography is both an artistic and a technical occupation. In all kinds of photographic work one must be familiar with and/or able to use a variety of cameras, lenses, film and filters. In addition, photographers must understand and be able to use and carry through chemical and other processing by which pictures are developed, enlarged, and printed.

In 1970 about 65,000 photographers were employed, with the majority in special fields such as portrait work, commercial and industrial photography. In 1970, an estimated 37,000 workers were employed in photographic laboratory occupations. Employment opportunities range from individual retail stores to large industrial complexes and openings are found in small towns as well as metropolitan areas. (See Illustration 1)

Photography is a multi-facet and multi-phased occupational cluster as both service and product are an integral phase of photography. Exploration into the various areas will provide a general understanding of requirements for job opportunities.

B. Course Objectives

1. To provide experiences and activities related to basic darkroom procedures.
2. To provide experiences and activities related to skills and requirements for a career in a variety of photography-related careers.
3. To provide experiences and activities related to the construction and properties of a camera.
4. To provide experiences and activities to familiarize students with a variety of organizations, businesses, and industries now using photography.
5. To provide students the experiences needed to evaluate their own interests and abilities.
6. To provide students experience in using the Dictionary of Occupational Titles and other sources of career information.

C. Course Strategy

1. Introductory Activities

- a. This unit will begin with the Photographic Career Interest Survey.
 - 1) A discussion on careers (Why? and How?) may be used letting students guide the discussion.

C. Course Strategy (Continued)

- b. An introductory glossary of terms will be given each student.
 - 1) The first part of the glossary will be on the construction and operation of a camera and film.
 - 2) The remainder of the glossary will cover a variety of film techniques and photography terms.
- c. The Eastman Kodak slide presentations will be given on "Photography Is," "Ideas Won't Keep," and "Worlds Within Worlds" may be used.

2. Procedures

- a. Students will complete a Photographic Career Student Interest Survey.
- b. Teacher will present vocabulary (preferably in 2 sections; mimeographed for each student.)
- c. Teacher will present slides and establish discussions on careers in photography.
- d. All students will be introduced to basic darkroom procedures. (This may be done in a darkroom or a "mock" darkroom within the classroom.)
- e. Students will work individually or in small groups on those exploration activities they find most interesting and which apply to their abilities and needs.
- f. Students will participate in individual activities as well as a variety of group activities designed to provide cooperative decision making opportunities.

3. Evaluation

Upon completion of this course each student will participate in an evaluation survey during exploration activity #16 and discuss changes in their career interests with the instructor.

4. Exploration Trips

A special experience being planned for students in every career area is a small group exploration trip. Effort has been made to make this as simple as possible for the classroom teacher. See appendix.

D. Suggested Time Table

1. Introduction (5 days)
 - a. Survey
 - b. Slide Presentation
 - c. Glossary of terms
 - d. D.O.T. Activity
2. Demonstrations and Practice (5 days)
 - a. Introduction to camera construction.
 - 1) Construct pinhole camera
 - b. Introduction to Darkroom Procedures
 - 1) Develop and print pictures
3. Exploration Activities (25 days)
 - a. Individual students experience exploration activities.
 - b. Student interest could result in more in-depth work on the behalf of an individual student in any specific activity.
4. Visuals, presentations and field experiences (5 days)
 - a. Students present a slide presentation of their work.
 - b. Visuals from the resource center.
 - c. Schedule career exploration trips
 - d. Role models presentations
5. Evaluation (5 days)

THE CAREER AREA OF PHOTOGRAPHY

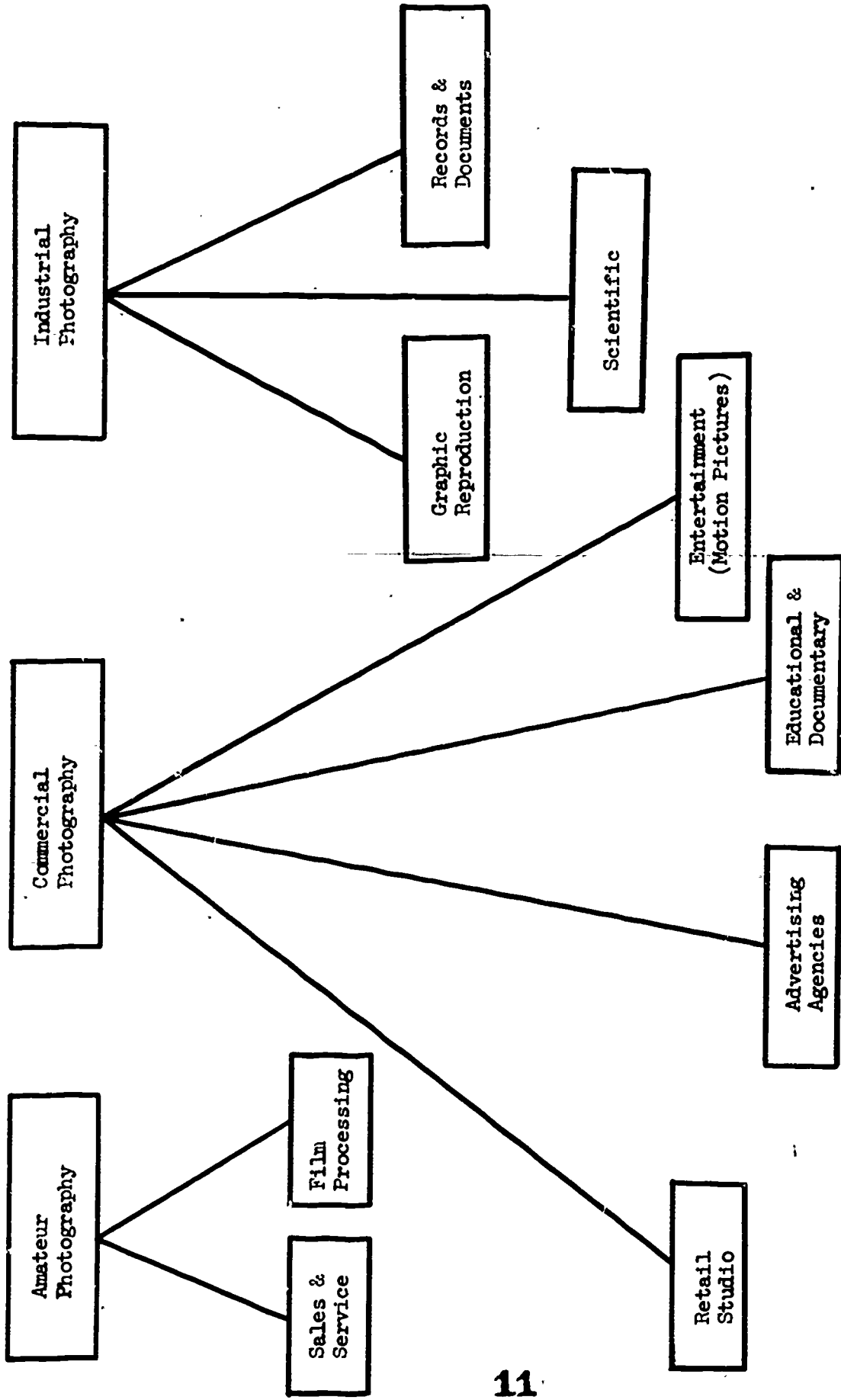


ILLUSTRATION I

II. Career Exploration Activities

A. Where to Begin --

1. Resources essential to pupil activities: Many resources listed on the following pupil activity sheets must be made available in the classroom before the students can begin the activities noted. These essential resources are specified IN WORDS on each exploration activity worksheet. THEY MUST BE OBTAINED BY THE TEACHER IN ADVANCE OF THE CLASS MEETING.

Examples:

a. Films

If . . . the worksheet reads:

RESOURCES
Film: Code Blue (C-7)

Then . . . ~~The teacher must look in Appendix C, Item 7 for~~ catalog information so that this film can be ordered in time for this activity.

- b. Material to be duplicated by the teacher for use in class.

If . . . the worksheet reads:

RESOURCES
See Analysis Quiz (B-4,5,6)

Then . . . The teacher must duplicate a class set of this item which is found in Appendix B as items 4, 5, and 6. Duplication can be achieved by Xeroxing, generating a ditto master via photocopying with IBM 107 and Thermofax or retyping onto a ditto master.

2. Optional resources to be used for enrichment, supplements and student or teacher reference are described only in the Appendix.

If . . . the worksheet reads:

RESOURCES
C-8

Then . . . This indicates that for this activity there is a potentially useful reference described in Appendix C, Item 8. This reference item is not essential to the completion of the student activity.

EXPLORATION ACTIVITY (INTRODUCTORY)

(2 day)

INTRODUCTION TO COURSE

OBJECTIVES

- Students will be able to:
1. Discuss critically the objectives of the course.
 2. Question people's attitude at work under various conditions as illustrated in a film.
 3. Form a general understanding of the course outline and procedure.
 4. Form some basic conclusions through the "self-analysis quiz."
 5. List and discuss at least 4 important factors of good on-the-job performance.
 6. Describe a wide variety of skills needed for specific jobs in this occupational area.

ACTIVITIES

1. The student will be informed of the purpose of this course, what is hoped to be accomplished, and will be led into a discussion of activities involved in Career Exploration.
2. The student will defend or reject by role playing, the position of maintaining good personal appearance, attitude and conduct on the job.
3. Explain to students the relation of the course and the "Self-Analysis Quiz" to their career selection. Students will participate in this self-analysis quiz.
4. Hand out and discuss a "Job-Performance Rating Sheet" which will be administered and discussed as part of the last exploration activity in this course.

RESOURCES

- Class set of "Self-Analysis Quiz" (attached)
- Class set of "Job Performance Rating Sheet" (attached)
- "What Do We Look Like To Others" 16 mm film, 10 min., Sandler Instructional Films, Inc. Board of Education.

SELF-ANALYSIS QUIZ

Directions: Check the line closest to the statement that identifies you. If you are uncertain, check the middle space.

Make at least average grades	_____	_____	_____	Make below average grades
Learn quickly	_____	_____	_____	Learn slowly
Enjoy reading books, magazines, etc.	_____	_____	_____	Enjoy reading comics
Like school and do extra work	_____	_____	_____	Do only schoolwork that is necessary
Talk and write well	_____	_____	_____	Talk and write poorly
Good planner and organizer	_____	_____	_____	Poor planner and organizer
Like children	_____	_____	_____	Dislike children
Patient with children's questions	_____	_____	_____	Impatient with children's questions
Outgoing	_____	_____	_____	Withdrawn
Popular	_____	_____	_____	Not popular
Have large group of friends	_____	_____	_____	A few close friends
Have confidence	_____	_____	_____	Unsure around others
Give advice	_____	_____	_____	Not asked for advice
Outspoken	_____	_____	_____	Quiet
Sensitive to others	_____	_____	_____	Insensitive to others
Trust people	_____	_____	_____	Do not trust people
Volunteer	_____	_____	_____	Do not volunteer
Pleasant personality	_____	_____	_____	Do not have pleasant personality
Have a sense of humor	_____	_____	_____	"Touchy"
Not prejudiced	_____	_____	_____	Prejudiced

JOB PERFORMANCE RATING SHEET

NAME: _____ DATE: _____

DEPT. _____ OPERATION: _____

	EXCELLENT	GOOD	FAIR	POOR
Attendance & Punctuality				
Quality of work				
Production				
Initiative				
Cooperation with instructor				
Cooperation with other students				
Interest in job				
Meets industrial quality standards				

If the student rates "poor" on any factor

or

If the student rates "fair" on more than three factors:

Discuss with the student the areas in which he or she will need to improve, before he can attain success in his chosen field.

Remarks: _____

EXPLORATION ACTIVITY (INTRODUCTORY)

Use of the D.O.T. (Dictionary of Occupational Titles)

The D.O.T. lists 35,550 jobs with a code number for each. The last three digits of this code refer to the relationship of that job to data, people and things. This exploration activity provides the students some experience in using this information to identify jobs which match their interests.

OBJECTIVES

The student will be able to:

Compare their knowledge about the data, people, things content of jobs to factual information listed in the D.O.T. for five jobs of personal interest.

ACTIVITIES

The teacher will conduct a classroom discussion on the D.O.T. code number in identifying the data, people, things orientation of jobs. (See the attached page for examples.)

Following this discussion each student is to complete the "D.O.T. Worksheet" which compares the student's estimate of the data, people, things job content to that listed in the D.O.T.

RESOURCES

Dictionary of Occupational Titles, Volumes I and II

Make a class set of "Examples of D.O.T. Code Usage."

Make a class set of the "D.O.T. Worksheet"

EXAMPLES OF D.O.T. CODE USAGE

<u>JOB TITLE</u>	<u>D.O.T. CODE</u>	<u>D.O.T. CODE MEANING</u>
High School Teacher	091.228	(Things) 8 - No significant relationship (People) 2 - Instructing (Data) 2 - Coordinating
Waitress	311.878	(Things) 8 - No significant relationship (People) 7 - Serving (Data) 8 - No significant relationship
Stock Clerk	223.387	(Things) 7 - Handling Things (People) 8 - No significant relationship (Data) 3 - Compiling
Auto Mechanic	620.281	(Things) 1 - Precision working (People) 8 - No significant relationship (Data) 2 - Analyzing data

DATA (4th digit)

- 0 Synthesizing
- 1 Coordinating
- 2 Analyzing
- 3 Compiling
- 4 Computing
- 5 Copying
- 6 Comparing
- 7 No significant relationship
- 8 No significant relationship

PEOPLE (5th digit)

- 0 Mentoring (Counseling)
- 1 Negotiating
- 2 Instructing
- 3 Supervising
- 4 Diverting
- 5 Persuading
- 6 Speaking-Signaling
- 7 Serving
- 8 No significant relationship

THINGS (6th digit)

- 0 Setting-Up
- 1 Precision Working
- 2 Operating-Controlling
- 3 Driving-Operating
- 4 Manipulating
- 5 Tending
- 6 Feeding-Offbearing
- 7 Handling
- 8 No significant relationship

For a definition of the above see pages 649 and 650 in Appendix A of the Dictionary of Occupational Titles Volume II.

D.O.T. WORKSHEET

- STEP 1. In table I at the bottom of this page, write the names of five jobs which are interesting to you.
- STEP 2. Use the handout sheet titled "Examples of D.O.T. Code Usage" and make an estimate of the correct code to describe this job. Record this estimate in Table I.
- STEP 3. Use Volume I or II of the D.O.T. and look up the D.O.T. code designation for each job. Compare these designations to your estimate.

TABLE I

NAME OF JOB	STUDENT'S ESTIMATE OF THE CORRECT CODE	D.O.T. CODE DESIGNATION
1. _____	XXX. _ _ _	_____
2. _____	XXX. _ _ _	_____
3. _____	XXX. _ _ _	_____
4. _____	XXX. _ _ _	_____
5. _____	XXX. _ _ _	_____

EXPLORATION ACTIVITY #1

PHOTOGRAPHIC CAREER INTEREST SURVEY

This is a student self-analysis survey of interests related to particular aspects of careers in photography.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The students will be able to:</p> <ol style="list-style-type: none">1. analyze their interests and preferences and relate these to specific types of photographic jobs.	<ol style="list-style-type: none">1. This activity is introduced by a classroom discussion in which the teacher reviews the implications of the data, people, things, analysis of jobs, and briefly previews the kinds of jobs in photography.2. Each student then completes a "photographic Career Interest Survey" and analyzes the personal significance of the results of this survey.3. This activity should be repeated near the end of this course.	<ol style="list-style-type: none">1. Make a class set of the attached survey and analysis sheet.



PHOTOGRAPHIC CAREER INTEREST SURVEY

You have indicated an interest in a career in photography. As you explore the various opportunities available you will discover a vast difference in many of the fields. There are also as many personalities as there are fields.

If you are considering a career in photography, it may be helpful to discover some personality traits which would best adapt to a particular area of photography.

1. You can earn \$100.00 Saturday by photographing an anniversary party of your aunt and uncle. You may make the same amount of money by photographing still life for an advertising layout. Will you go to the party?

Yes _____ No _____

2. Do children seem to like to talk with you? (Have you spoken thoughtfully with a small child in the past few days?)

Yes _____ No _____

3. Are you a good financial manager? (If you owe money, do you pay it right away?)

Yes _____ No _____

4. If a friend owes you money, can you collect it easily even though he may have other problems?

Yes _____ No _____

5. Do you believe you'd enjoy darkroom work?

Yes _____ No _____

6. Can you think of anything better than being a prosperous public official or civic leader in a large city?

Yes _____ No _____

7. Do you regularly read one newspaper and news magazine?

Yes _____ No _____

8. If you have not definitely decided on a career in photography would your second choice be a newspaper reporter?

Yes _____ No _____

9. Do you analyze political speeches and stories rather than just hearing and reading words?

Yes _____ No _____

10. Would you like to photograph a rescue mission in a blizzard to complete an assignment even though you would be physically uncomfortable?
- Yes _____ No _____
11. Can you select a picture in a newspaper which will attract the greatest attention?
- Yes _____ No _____
12. Are you exposed to people in fields other than photography in your daily life?
- Yes _____ No _____
13. In your school years has there been one field in which you continually do well?
- Yes _____ No _____
14. Are you uncertain in choosing a career in photography or music, photography or teaching, photography or anything else?
- Yes _____ No _____
15. If there was a picture on the wall in the last photograph you took or saw, would you remember its subject?
- Yes _____ No _____
16. Would you sacrifice going anywhere, anytime you were given an assignment no matter what was going on in your personal life?
- Yes _____ No _____
17. When someone tells you "That's impossible," do you go ahead and do it anyway?
- Yes _____ No _____
18. Do you prefer moving pictures rather than still pictures?
- Yes _____ No _____
19. T.V. commercials have recently come under criticism from the public. Do you appreciate the creativity and energy that has gone into making them?
- Yes _____ No _____
20. When others disagree with your opinions do you usually stick to your ideas?
- Yes _____ No _____

21. Do you look for immediate financial rewards or can you plan for future prosperity?
Yes _____ No _____
22. Would you like to teach or be a counselor or president of a sorority or fraternity?
Yes _____ No _____
23. Have you helped a younger brother or sister (neighbor) learn to do something? (Homework, ride a bicycle)
Yes _____ No _____
24. Assuming you are a photographer, would you be willing to accept an apprentice without pay?
Yes _____ No _____
25. Do you enjoy the social life in your school?
Yes _____ No _____
26. Do you read one of the photography magazines?
Yes _____ No _____
27. Would you do research on the history of photography?
Yes _____ No _____
28. Would you enjoy writing a book about photography?
Yes _____ No _____
29. Do you enjoy working alone rather than with others?
Yes _____ No _____
30. Are you interested in how and why things happen?
Yes _____ No _____

ANALYSIS SHEET FOR PHOTOGRAPHIC CAREER INTEREST SURVEY

YES RESPONSES
TO THESE ITEMS RELATE TO THE TYPES OF ACTIVITIES
LISTED BELOW

- | | |
|---------|-------------------------|
| 1 - 6 | Studio Photo |
| 7 - 11 | News Photo |
| 12 - 16 | Special Field |
| 17 - 21 | Motion Picture or TV |
| 22 - 28 | Teaching or Educational |
| 29 - 30 | Darkroom Technician |

EXPLORATION ACTIVITY #2

PHOTOGRAPHY AND MOTION PICTURE CAMERA WORK D.O.T. 143.062

DESCRIPTION: This group includes occupations concerned with photographing people, events, fictionalized scenes, materials and products with still or motion picture cameras. Workers frequently conceive artistic photographic effects, and arrange and prepare the subject matter to be photographed.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> 1. Identify and define the vocabulary by matching definitions with terms. 2. Identify the technical and artistic elements involved in all camera work when given a vocabulary test for definitions. 3. Label correctly the parts of a camera when given a sketch. 4. List likes and dislikes experienced from involvement in activities dealing with the photographic process. 	<ol style="list-style-type: none"> 1. Students identify the type of photography involved with the various occupations listed in D.O.T. descriptions. 2. Cut pictures from magazines and newspapers, fasten to large sheet of cardboard, name the source, and explain under each picture the impact, composition, photographic equipment used, and write the reason that the picture was used. 3. Students exchange empty cameras for the following examinations: <ol style="list-style-type: none"> a. shutter speeds b. size of film c. exposure controls d. speeds of film available for each camera e. ease of handling f. electronic and flash equipment available 4. Photograph: <ol style="list-style-type: none"> a. groups outdoors b. groups indoors c. individual in-and-outdoors d. process: film contact print or enlarge pictures 	<ol style="list-style-type: none"> 1. a. Student dictionaries- Webster b. List of jobs. Make a class set of Appendix E. 2. a. Old copies of newspapers and magazines b. Cardboard sheets or wrapping paper. 3. a. Students bring cameras to class. b. Teacher uses school cameras for demonstration. 4. a. Students supply cameras, film and flash equipment b. Students use school cameras c. Teacher photographs a group, develops and prints pictures as a demonstration 5. F - 6, J



EXPLORATION ACTIVITY #3

MOTION PICTURE PROJECTIONIST 960.382 (Amusement and Recreation) Cinematographer, Projectionist, Theater

DESCRIPTION: Sets up and operates motion picture projection and sound-reproducing equipment to produce coordinated effects on screen. Inserts film into top magazine reel of projector. Threads film through picture aperture of projector, around pressure rollers, sprockets, wheels, and sound drum or magnetic sound pick-up on film, and onto spool that automatically takes up film stock. Regulates projection light and adjust sound - reproducing equipment. Watches operation of machine and anticipates operation from one machine to another without interrupting flow of action on the screen. Rewinds broken end of film onto reels by hand to minimize loss of time. Inspects and rewinds projected films for another showing. Repairs faulty sections of film (motion picture). Operates stereopticon (Magic Lantern) or other special-effects equipment to project picture slides on screen. Cleans lenses, oils equipment, and makes minor repairs and adjustments. May operate spotlight on stage performers, following directions on prepared cue sheets. May be required to have city license.

OBJECTIVES

- The student will be able to:
1. Identify and define words and terms related to this job when given a vocabulary test.
 2. Label correctly the parts of a 16 mm projector.
 3. List the requirements for entrance into the Projectionist Union.
 4. List steps to be taken in joining the projectionist union.

ACTIVITIES

1. Read the job description and look up the definitions of the words that you do not understand.
2. Examine the 16 mm school projectors and name all the parts.
3. Learn to operate all audio-visual equipment used by the school.
4. Join the audio-visual or stage-crew of your school.
5. Visit a projection booth during showing of a movie, if possible.
6. Classroom visit by a projectionist.
7. Contact managers of theaters to see if the owners or managers hire the projectionist or if they call union office for projectionist.
8. Contact the union office to see if they train projectionist.

RESOURCES

1. a. Student Dictionary
b. Operation manuals on A.V. equipment.
c. Use 16 mm school sound projectors.
 2. 16 mm school projectors.
See audio-visual representative.
 3. School audio-visual representative.
 4. Teacher will make calls for this field experience.
 5. a. Teacher calls union office for projectionist
motion picture operator
b. Teacher checks with class to see if they know a projectionist.
- F-6, d
6. Yellow pages - Telephone Directory

FILM TECHNICIAN 962.885

DESCRIPTION: Tends electronic machine that automatically inspects, cleans, counts footage and rewinds reels of motion picture film, and repairs film defects, using handtools. Places reel on spindle and threads film through guides, pulleys, cleaner rollers, and counters. Presses lever to start machine and observes flashing lights and numbers that locate defects, such as broken sprocket holes, cuts and tears, or faulty splicing. Removes damaged film sections or repairs defects, using handtools. Splices end of film, using splicing machine. Pastes gummed labels over end of film to prevent unwinding and to indicate completion of inspection. Stores and selects reels according to title and length of film, and packs film in container for delivery according to booking order.

OBJECTIVES

1. The student will be able to demonstrate the proper procedure in operating a 16 mm projector and identify (while performing) the various parts.
2. Demonstrate an ability to locate defects when given a section of film.
3. Locate businesses who hire film technicians.
4. Identify jobs performed at the resource center by listing various jobs described by Mr. Schroeder

ACTIVITIES

1. Define the following words:
 - a. electronic
 - b. automatically
 - c. footage
 - d. spindle
 - e. sprocket holes
 - f. splice
 - g. inspection
 - h. sprocket
2. Inspect 16 mm sound film using hand microscopes (magnifying glasses) or tripod magnifiers.
3. Locate defects in sections of 16 mm film such as damaged sprocket holes.
4. Relate all film defects to the definitions of the words in the job description.
5. Write the names and phone numbers of businesses that offer motion picture film services for 35 mm and 16 mm film.
6. Call one motion picture distributor of 35 mm film and ask them who repairs the damaged film that is used in theatres.
7. Call one motion picture company who distributes free 16 mm film and ask them about re-pairs of damaged film.

RESOURCES

1.
 - a. Use student dictionary
 - b. Teacher provide additional vocabulary as needed.
 - c.
 1. Obtain magnifiers from Biology Dept.
 2. Broken sections of 16 mm film from A.V. representative of school
 - d. Definition of words in Activity #1-a
2.
 - a. Yellow pages
 - b. F-7-F
 - c. Audio visual person at your school.
3. Teacher call Mr. Schroeder 369-4755 and arrange for a visit.
4.
 - Use microscopes
 - a. from biology department
 - b. damaged practice film from Resource Center
 - c. movie projector from school

EXPLORATION ACTIVITY #4

(page 2)

OBJECTIVES	ACTIVITIES	RESOURCES
	<p>a. Do they inspect, splice and repair 16 mm film at their location?</p> <p>b. What are the chances of obtaining a job as a film technician?</p> <p>8. Interview the audio visual representative at your school to find out about 16 mm distribution and film repairs of school film.</p> <p>9. Visit the school system resource center.</p> <p>a. Observe how 16 mm film is inspected.</p> <p>b. How is the film spliced?</p> <p>c. Can you use scotch tape?</p> <p>d. How are "butt-joints" made?</p> <p>e. Why are "butt joints" made?</p> <p>f. What causes holes in film?</p> <p>g. What does a 400 ft. reel of film cost?</p> <p>h. How are damaged sections of film cut and replaced with new film?</p> <p>10. Examine with microscope sections of 35 mm and 16 mm sound film.</p> <p>a. Find the optical sound tract on the film.</p> <p>b. Cut sections from film and try to splice the cut film back to its original position</p> <p>c. If film is spliced will the splice feed through the film gates of a projector. Use hand knob to observe the action.</p> <p>d. Observe 16 mm movie projectors in operation in school classes. See if you can locate bad splicing from picture quality.</p>	

CAMERA REPAIRMAN (ANY INDIVIDUAL) 714.281

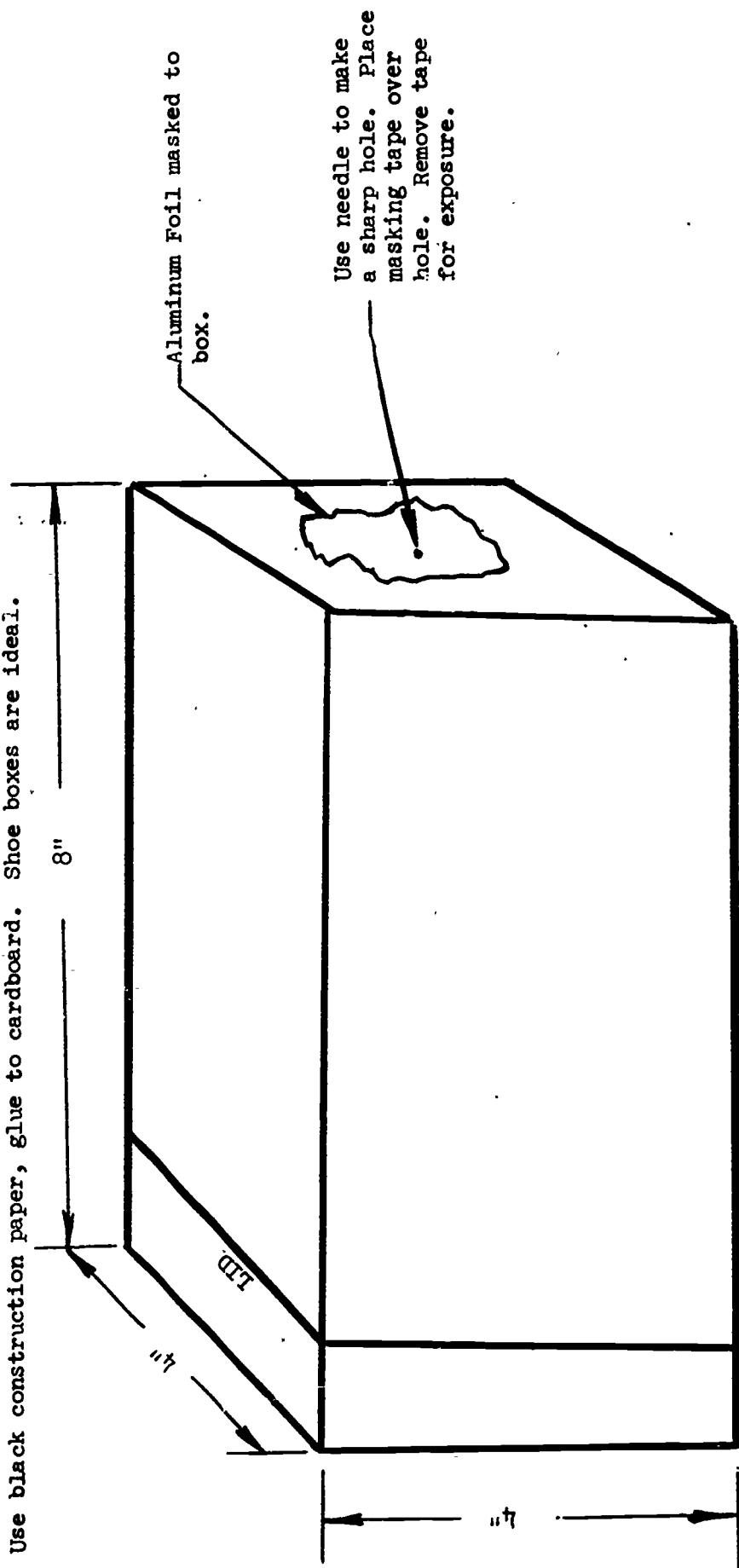
DESCRIPTION: Repairs and adjusts cameras, using specialized tools and test devices. Disassembles cameras, using hand tools. Tests and aligns diaphragm, lens mounts, and film transport to minimize optical distortion, using precision gauges. Adjusts range and viewfinders, using fixed focusing target. Calibrates operation of the shutter, diaphragm, and lens carriers with dial settings, using electronic or stroboscopic timing instruments. Fabricates or modifies parts, using bench lathe, grinder and drill press.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> Investigate the principles of the camera and label correctly the parts of the camera. Describe camera repair activities which are located in this geographical area. 	<ol style="list-style-type: none"> Bring empty cameras and instructional manual to class. <ol style="list-style-type: none"> Name and identify all the parts of the camera Operate the camera with the back open and observe the working of the shutter and the different diaphragm openings. Collect old broken cameras and photographic equipment and watch how various parts fit together and function as a unit. Construct pin-hole cameras using cardboard boxes. <ol style="list-style-type: none"> Photograph with pin-hole cameras Process film and make contact prints Use the "Yellow Pages" to see the number of businesses that do camera repair work. Check the camera stores to see how they go about repairs on camera. 	<ol style="list-style-type: none"> <ol style="list-style-type: none"> Students furnish cameras or use school camera. Teacher provide vocabulary. <ol style="list-style-type: none"> See drawings and instructions with this packet. See drawing of a light tight darkroom with this packet. <ol style="list-style-type: none"> "Yellow Pages" Teacher call: Paul Heiselman 531-5678 He received his training through National Camera Repair School.

CAMERA REPAIR

CONSTRUCTION OF PIN-HOLE CAMERA

Use black construction paper, glue to cardboard. Shoe boxes are ideal.



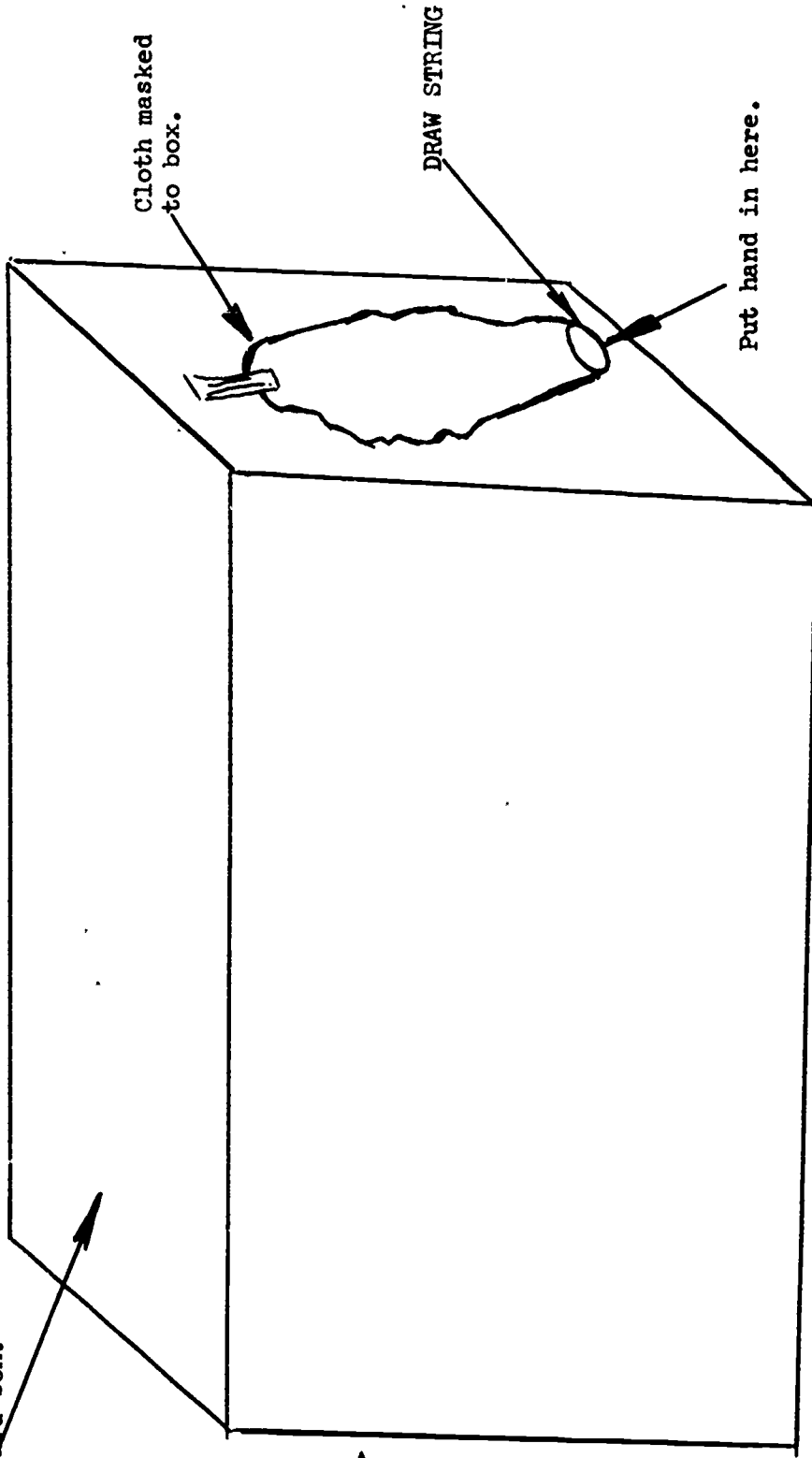
DIRECTIONS: Mask film in light tight box to lid. Place lid on "pin-hole" box. Camera must be placed on solid support. Remove tape from the "pin-hole". Exposures will be long depending on the speed of the film used.



CAMERA REPAIR

LIGHT TIGHT DARKROOM

Light tight darkroom box to be used in a classroom.
Use any cardboard box.



Put cloth here. Same as other side.

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DIRECTIONS: Construct box so that it may be opened. Put materials, film, and "pin-hole" camera in box.

Seal with masking tape. Put hands in end-holes and manipulate the loading of the "pin-hole" camera.

EXPLORATION ACTIVITY #6

PHOTO CHECKER AND ASSEMBLER: D.O.T. 976.687

DESCRIPTION: Inspects, assembles, packs negatives, transparencies and photographic prints

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> 1. Select those negatives which illustrate good tone sharpness of light and dark and image when given a set of 20 negatives. These negatives will then be placed in a "printing" envelope. 2. Assemble within a given period of time a set of positives matching each with the negative. 3. List 5 types of camera and film used in each. 4. Report on employment opportunities. 	<ol style="list-style-type: none"> 1. Students will collect a series of photographs dealing with any subject matter. <ol style="list-style-type: none"> a. Negatives to be included b. Student will then view the negatives using Resource 1 and evaluate and edit. c. Compare and contrast negatives and positives. 2. Students interested in this area should participate in Photography for Educational Sales as a technician. 3. Using the "Yellow Pages" students will list types of cameras and film available. 4. Students will contact several companies and interview <ol style="list-style-type: none"> a. a photo checker b. personnel manager 	<ol style="list-style-type: none"> 1. a. 35 mm projector b. overhead projector available in local school. 2. Students photographs (negative and positive) 3. F-5 (a)

EXPLORATION ACTIVITY # 7

PHOTOGRAPHER NEWS (Print and Pub.) 143.062

DESCRIPTION: Camera man, photographer, newspaper. Photographs news events or people for use in illustrating news stories and articles. Travels to assigned location and takes pictures using camera. Returns to newspaper office with exposed plates, develops negatives, and prints picture for use in making printing plates for future use. May make enlargement of illustrative materials secured by reporters. Frequently specializes in one branch of work, such as news, sports, special features, or portrait photography.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> 1. Make an analysis of the requirements of the job and its task. 2. Demonstrate that a news photographer works under different conditions than a general photographer by completing Activity 2 or selecting 10 photos from the newspaper taken under different conditions and labeling according to time and condition. 	<ol style="list-style-type: none"> 1. Collect magazine and newspaper pictures of well known news photographers and answer questions on the attached sheet. 2. Students take pictures under adverse conditions <ol style="list-style-type: none"> a. in the rain at night b. in the fog c. in cold weather 3. Take pictures, process film, print or enlarge a picture in 20 minutes. 4. Submit prints in various sizes to school. 5. Submit prints in gloss or flat paper to school paper. 6. News photographer comes to class. 7. Examine pictures from magazines and newspaper to see if the picture can tell a story without the use of words. 	<ol style="list-style-type: none"> 1. a. Magazines and newspapers b. Question page on rear of this packet 2. Students furnish cameras, film and flash equipment. 3. a. Student use own equipment. Devise a day-light processing box. b. Editor of school paper 4. F-6-E John Brunner Courter Tech. H. S.

EXPLORATION ACTIVITY #7

QUESTIONS FOR PICTURE COLLECTION

PHOTOGRAPHER NEWS - 143.026

FILL IN THE BLANKS FOR EACH PICTURE ON THE COLLECTION:

WEATHER _____ Time _____

SEASON _____ PICTURE TITLE _____

PEOPLE _____ How Many? _____

PHOTOGRAPHER _____

MAGAZINE OR NEWSPAPER _____

PICTURE SHOWS: _____

EXPLAIN WHY THE NEWSPAPER OR MAGAZINE PRINTED THIS PHOTOGRAPH: _____

PICTURE FOUND ON _____, OR ON PAGE _____

OF THE PUBLICATION

EXPLORATION ACTIVITY #8

SALESPERSON, PHOTOGRAPHIC SUPPLIES AND EQUIPMENT 285.358

DESCRIPTION: Sells photographic and optical equipment and supplies, such as cameras, projectors, film and binoculars, performing duties as described under salesperson. Shows equipment to customer and explains functioning of various cameras, filters, lenses, and other photographic accessories. Receives film for printing. May repair photographic or optical equipment.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> 1. Identify the number of businesses in the metropolitan area involved in selling photographic supplies 2. Construct a job analysis form. 3. Interview a photographic salesperson listing his specific task and submit the following interview form. 4. List personality traits of people engaged in sales. 	<ol style="list-style-type: none"> 1. Students use the "Yellow Pages" and find all appropriate headings and businesses. 2. Students write the names of shops, phone numbers and addresses of shops listed. 3. Ask the class what they want to know about the job. 4. Discuss the information that must be collected and thereby develop an interview form. 5. Use the interview form in #2 above. 6. Go to a camera store and interview a salesperson. 7. Salesperson to come into class, give talk or demonstrate with photographic equipment or complete assignment in which each is responsible for contacting salesperson for interview. 8. Give an analysis of a case study and describe each personality trait. 9. Role-play -- have students act as salesperson and buyer using positive personality traits. 	<ol style="list-style-type: none"> 1. Minimum of five copies of the "Yellow Pages" 2. Make a class set of "suggested questions interview" form attached. 3. a. Teacher use information collected in Activities #1 or b. Students call or contact salesperson. 4. Sample case study which is attached.

EXPLORATION ACTIVITY #8

Suggested Questions for Interview

1. Student's name
2. Salesman's name
3. Place of employment
4. Address of business establishment
5. Phone to contact salesperson
6. How much knowledge of photography is necessary?
7. Knowledge of cameras necessary?
8. What does the salesman do?
9. Hours worked
10. Days of week on job
11. Working conditions and codes of dress
12. Salary and benefits
13. Retirement plan
14. Transportation needed
15. Parking
16. Lunch time
17. How do you obtain a job in this field?
18. How much training is needed?
19. What school subjects may you take in order to fill requirements for the job?
20. Is the job primarily for men, women, or both?
21. How many years of schooling does the job require?
22. Starting pay
23. Highest pay
24. Future jobs
25. Promotion
26. Part of job pleasing to you
27. Special test

EXPLORATION ACTIVITY #8

SALESPERSON - PHOTOGRAPHIC SUPPLIES AND EQUIPMENT 285.358

Sample Case Study for Salesperson's Personality Traits

Bill Smith enters camera store with camera. Joan (salesperson) asks if she may help him. Bill wants film for his camera and asks Joan about the size. Joan puts her book down and tries to open camera; she can't. She yells to Ed in the back. Ed tries and can't open the camera. Ed doesn't know what size film, but he states that sometimes you can find the film size on the inside of the camera.

Bill is impatient and begins to play with an enlarger. Joan asks him not to handle the equipment. Another customer enters store to pick up developed pictures. Joan answers the phone. Ed tries to find film. Joan asks Ed if Mr. Young's camera is ready. Ed runs to back room. Joe, Ed's friend, enters store. Ed and Joe talk. Bill picks up his camera and walks from the store.

DESCRIPTION: Photographs persons, places, things to be used in a variety of educational ways

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> 1. Identify the various types of educational photography (films slides, filmstrips loop films) and identify correctly the five types of projectors when viewed in the classroom. 2. List 10 requirements for positions. 3. Present a 3-minute sales talk to the class. 4. Explain the role of the editor, lighting director, and layout man. A single paragraph is to be written for each role. 	<ol style="list-style-type: none"> 1. View as a class several educational films and slides <ol style="list-style-type: none"> a. Discuss purpose and evaluate b. Operate projectors 2. Class will be divided into various jobs required to film, produce and present a slide presentation dealing with an educational concept. <ol style="list-style-type: none"> a. i.e. Introduce the numbers from 1-10 to a kindergarten class b. This simulation will include artists, layout men, lighting director, photographers, darkroom technicians, editor, advertising people, salespeople, and narrator. c. The presentation should be shown to an appropriate age group and, if possible, "sold". <p>*Students and teacher may choose a different concept and market.</p>	<ol style="list-style-type: none"> 1. F-7, j. k, l. F-7, b (1-4) Teacher secure projectors for demonstration. 2. Secure camera, Kodak Slide Developing Kit, Bert Mason. 3. Secure "audience" to view presentation.

EXPLORATION ACTIVITY #10

VIDEO-CAMERA ENGINEER (RADIO & TV BROADCASTING)

DESCRIPTION: Operates television camera to photograph scenes for broadcast. Discusses dramatic effects, mood, and photographic composition of scenes to be broadcast with Director 1. Directs cameraman, assistant to position camera dolly. Observes scenes through camera monitor and adjusts camera lens to maintain scenes in focus. Moves levers to alter angle or distance of shot as directed by director.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> Analyze the requirements to become a video camera engineer. Identify the task of a video camera engineer by listing the various duties involved. 	<ol style="list-style-type: none"> Call or write electronic schools in Cincinnati to find the requirements for a first class Broadcast Technician license from the Federal Communications Commission. Call television stations and talk with technical supervisors or video camera engineers about steps you may use to get a job. Arrange for a technical supervisor or video camera engineer to visit the classroom. Use sample copies of test questions from Federal Communication Commission Test. Invite people from electronic schools to classroom to answer the following questions: <ol style="list-style-type: none"> Can you start to work for your license while you are in the 9th grade? What kind of questions or problems are on the F.C.C. test? Will the license help you to get a job? How much will it cost to get a license? Do you need a high school certificate to get a job as a video-camera engineer? Does a knowledge of using a camera help you to be a video camera engineer? 	<ol style="list-style-type: none"> Yellow Pages Teachers invite a video camera engineer to class F-5 - d, e. Make a class set of question page attached. Sample test questions for Civil Service and Federal Government from public library. F-6, f.

EXPLORATION ACTIVITY #10
(page 2)

OBJECTIVES	ACTIVITIES	RESOURCES
	<p>6. Use a camera (TV), TV recorder and portable television.</p> <p>a. Tape school activities.</p> <p>b. Practice photographing groups using the viewfinder only. See if you can see all of the action. Are you "sharp" and "alert" enough to catch all of the actions?</p> <p>7. Go to a live talk show and observe the cameraman. Answer the following questions:</p> <p>a. Does the cameraman "catch" the action of the audience? of members of the audience?</p> <p>b. Is the cameraman under pressure from a program director? from the show's star?</p> <p>c. Why is the cameraman wearing earphones?</p> <p>d. Who is telling the cameraman what to do?</p> <p>e. Identify the technical supervisor, program director, audio engineer and video engineer.</p> <p>8. Assign roles and film a commercial for TV using video tape and camera. This simulation should include all facets of production and marketing.</p>	<p>6. F-6, a</p> <p>7. Teacher make arrangements with TV station.</p> <p>8. F-6, a.</p>



EXPLORATION ACTIVITY #10

QUESTIONS TO BE ANSWERED ABOUT THE JOB

1. How does the Chief Engineer of a T. V. station go about selecting people for Video Camera Engineers?
 - a. Does he give them a test?
 - b. Must they have a certificate from any certain school?
 - c. Will a First Class Broadcast Technician License be enough to qualify a person for a job?
2. Will an electronics school help you to obtain a license?
3. What does the job pay? Starting salary? Maximum salary?
4. What are the opportunities for promotion?
5. Will the T. V. station train a person as a substitute for the cameramen who are on vacation?
6. Must you join the union?
7. Does the union select the people and send them to T. V. stations who need cameramen?
8. What are the other tasks of a cameraman?
9. Why must a cameraman know electronics?
10. Does the cameraman operate projectors for movies?
11. Does the cameraman operate video recorders?
12. What does the cameraman do on the radio section of a station?
13. Can a person study electronics on his own to pass the test for a license?
14. Why does a knowledge of photography help you to be a "top" video camera engineer?
15. What are the fringe benefits?
16. Does the station or union have a retirement plan?
17. How much does it cost to join the union?
18. Must you join the union?
19. What are the hours that you work?
20. Must you work on weekends?
21. Must you work on Christmas and Easter?

EXPLORATION ACTIVITY #11

PHOTOGRAPHER, COMMERCIAL (PROFESSIONAL), STILL CAMERAMAN 143.062

DESCRIPTION: Photographs persons, motion picture sets, merchandise, exteriors and interiors, machinery and fashion to be used in advertising and selling. Arranges equipment, such as lighting, screens, and shades, and moves objects, such as backdrops and props, to obtain desired effects. Loads film in film holders. Sets camera for correct angle and distance, adjusts lens for focus, and places negative plate in camera. Removes slide from plate and squeezes lens-shutter bulb to open lens shutter and expose plate. Mixes solutions and chemicals used in developing plates and films and printing positives. Enlarges, reduces, and intensifies prints. May take portraits.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> 1. Identify tasks performed by a commercial photographer. 2. Demonstrate the task of a commercial photographer by describing in writing a photograph to be used in advertising. 3. List personality traits needed by a commercial photographer. 	<ol style="list-style-type: none"> 1. Collect magazines and newspaper pictures of things offered for sale such as air conditioners, cars, tires, etc. <ol style="list-style-type: none"> a. Discuss the type of photography involved with each. b. Name the source and title of each picture and evaluate the impact of the shot for the sale of the item. 2. Examine a trading stamp catalogue and answer the following questions or complete the activity. <ol style="list-style-type: none"> a. What is the impact of color? b. How are the items arranged? c. Select ten (10) items (pictures) that have "selling appeal" and explain why each is pleasing to you. 3. Using cameras, tripods and natural light, photograph the empty auditorium of the school. 4. Photograph the empty lunchroom. 	<ol style="list-style-type: none"> 1. Teacher brings magazines and newspapers to class or students bring material to class. 2. Free - Teacher may supply. 3. Students furnish all equipment or use the school camera. 4. Make contact with the lunchroom manager.

EXPLORATION ACTIVITY #11
(page 2)

OBJECTIVES	ACTIVITIES	RESOURCES
	<p>5. Photograph an electric chrome toaster using tripods:</p> <ul style="list-style-type: none"> a. With natural light or available light. b. With photoflood lamps c. Discuss the problems of photographing reflecting surfaces: <ul style="list-style-type: none"> 1. Camera angle 2. Placing of light to keep down the reflection of the lamps through the lens <p>6. Photograph school clubs</p> <ul style="list-style-type: none"> a. Using sunlight b. Using electronic or photoflash lamp. <p>7. Practice arranging small or large groups for photographs.</p> <ul style="list-style-type: none"> a. Discusses the problems of analyzing people b. Demonstrates that a friendly attitude is necessary for cooperation from a group to be photographed. <p>8. Role-play problems with people when making photographs:</p> <ul style="list-style-type: none"> a. When groups of people are to be photographed and individuals in the group do not desire to be photographed b. Groups of people who will not fit into the view finder frame. 	<p>5. Teacher or students bring toaster to class.</p> <p>6. Students furnish camera, tripods and lights whenever possible.</p> <p>7. School may furnish film and photographic paper if the pictures are used in school publications.</p> <p>8. Use members of class or invite home economics class with finished garments to class.</p> <p>9. F-6, c</p>

EXPLORATION ACTIVITY #12

PHOTOGRAPHER, AERIAL (PROFESS & KIN) 143.382

DESCRIPTION: Photographs sites from airplanes in flight for news, scientific or military purposes: Calculates number of exposures and time lapse between them required to obtain picture. Loads camera with film and mounts it on camera mount or any convenient part of airplane. Follows plotted course on map indicating altitude and area to be covered. Adjusts exposure time. May prepare solutions and chemicals used in developing films and printing positives. May match individual photographs for terrain map.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> 1. Identify five aerial photos and label five specific sites given a photo of Cincinnati. 2. Indicate an ability to correctly read a variety of types of maps by locating a given number of items and a variety of maps. 3. Identify the educational requirements for the position in a short essay. 	<ol style="list-style-type: none"> 1. Collect as many aerial photographs as possible and assemble on a background (cardboard or bulletin board in the classroom) 2. Select an area of Cincinnati to photograph. Use maps and original sketches. Explain the altitude, exposure time, purpose of photographs to the class. 3. Using the yellow pages, make a list of businesses which use or specialize in aerial photography and interview either the photographer or personnel department. 	<ol style="list-style-type: none"> 1. F-6, 1 2. F-h, 1

EXPLORATION ACTIVITY #13.

CAMERAMAN, ANIMATION (MOTION PICTURE) 143.382

DESCRIPTION: Operates special type camera to make animated cartoon motion picture films: Places background drawing on horizontal easel over which camera is suspended. Positions drawing, exposes film, and repeats process, using next drawing in animation sequence.

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> 1. Describe in writing the basic function of the special camera used. 2. Analyze the composition impact of a series of cartoons in a brief essay. 3. List studios that employ animation cameramen. 	<ol style="list-style-type: none"> 1. Contact Levy film (Walt Disney Distributor) or Walt Disney Studio, and request description of special equipment used. 2. Follow a cartoon series for one week - clipping each day's cartoon. Note order, composition, changes in positions and impact (written or visual). Discuss with another student or teacher the above. <ol style="list-style-type: none"> a. sketch a series of pictures to be used in an animated cartoon. b. photograph the series of pictures to simulate an animated cartoon. 3. Write a syndicated cartoonist (Al Lapp) or newspapers, magazines, or movie studios for information about cartooning and cameramen. 	<ol style="list-style-type: none"> 1. F-7, g 2. F-6, b 3. F-4, a 4. School cameras and Super-8 (available at Aiken)

PHOTOGRAPHER, SCIENTIFIC 143.282

DESCRIPTION: Photographs plant and animal tissue and microscopic specimens of food, oil, metal, and other products and develops negatives to provide pictures illustrating industrial and scientific processes and phenomena. Places particle of materials on slide or flat surface under lens of photomicroscope to be photographed, views specimen through camera lens to check focus. Presses lever to open shutter and expose film. Plans set-up of equipment and procedures to meet unusual situation, such as use of infrared or ultraviolet light to produce visible record of normally invisible phenomena. Prepares solutions and chemicals used in developing plates and films. Writes degree of magnification on back of each picture. May act as consultant to organizations concerned with problems in such fields as aerodynamics, ballistics, biology, engineering, and metallurgy. May perform additional duties in particular fields, such as medicine. (Biological Photographer)

OBJECTIVES	ACTIVITIES	RESOURCES
<p>The student will be able to:</p> <ol style="list-style-type: none"> Analyze the job description by listing activities which are involved in taking a scientific photograph. Identify the task of a scientific photographer in one or two paragraphs. List conditions under which 5 given scientific photos were taken. 	<ol style="list-style-type: none"> Using the job description above, write the words and definition of the words you do not know on a sheet of notebook paper. Discuss the number of fields of science involved with a student's opinion of personality, training and other factors. Use a microprojector and project slides (microscopic) on a screen. Use microviewers and slides that were made with a photomicroscope. Use infrared film in school camera or student camera and photograph: <ol style="list-style-type: none"> trees a burning candle a piece of burning magnesium ribbon Using color film and close-up attachment lens on cameras, photograph pictures that were made with ultraviolet sensitive film. (Do not photograph the sun) 	<ol style="list-style-type: none"> Science Dictionary from the library or science department of school. Use from Biology Dept. Microviewers and slide boxes are located in the Biology Department. Order film from Eastman (1 & 2) or photographic dealer special order. Use magnesium ribbon from Science Department. Past issues of <u>Life</u> found in school library also <u>Life-Science Series</u>

EXPLORATION ACTIVITY #14
(page 2)

OBJECTIVES	ACTIVITIES	RESOURCES
<p>4. List the businesses offering jobs in this field.</p>	<p>7. Check out books from library on various areas (biology, medicine, etc.) and find source of photos and conditions under which objects were photographed.</p> <p>8. Visit an astronomical observatory and answer the following questions?</p> <ol style="list-style-type: none"> How are pictures of the moon made through a telescope? How can you use your camera to photograph the sun? Invite an astronomer to class and ask him questions about the problems of photographing the heavens. <p>9. Give name, location and phone number of businesses that do:</p> <ol style="list-style-type: none"> photographic surveillance photocopying photoprints serial photography non-destructive testing using X-Ray photography. <p>10. Call biological businesses to see what they do in the field of photography and make a report to your class about your research.</p> <p>11. Call Biology Department of U. C. and arrange an interview with a graduate student in biological sciences.</p>	<p>7. Observatory, University of Cincinnati Observatory Place 321-5186 (2-3)</p> <p>Astronomical Society of Cincinnati Mr. Paul Nohr 661-0774</p> <p>8. F-6, h 5-c</p> <p>9. Yellow Pages</p>

EXPLORATION ACTIVITY

(2 Days Suggested)

Student Self Evaluation of Career Maturity

This activity is planned to help the students analyze and learn to value their career-related experiences and the level of their career maturity.

Seven areas of growth and development which have been identified for this use are as follows:

- | | | |
|--|---|--------------------------|
| 1. Individual and Environment (Social Awareness) | 4. Education and Training | 7. Self (Self-Awareness) |
| 2. Economics | 5. Employability and Work Adjustment Skills | |
| 3. World of Work | 6. Vocational Decision Making | |

OBJECTIVES

The student will be able to:

- Respond, in a purposeful and business-like manner, to one or more questions which ask the student to analyze their experiences in each of the developmental areas.

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ACTIVITIES

Each student is asked to seriously consider their career related experiences. A brief class discussion and/or small group discussions may be used to introduce this topic.

The students should view the films "What Do We Look Like to Others" and "I Want to Work For Your Company". If these films have been viewed previously they should be reviewed and discussed.

Following a review of these films each student is asked to respond to a set of self-analysis questions prepared by the teacher. To help the teacher in preparing these questions a definition of each developmental area and sample questions for each area are attached to this sheet.

RESOURCES

The teacher will need to generate class sets of questions.

These two films are available from Resource Services on Iowa Street.

DEFINITIONS OF DEVELOPMENTAL AREAS

Individual and Environment (Social Awareness)

In this area of the student's development, the student must determine who he is and how he relates to his environment. He must be involved in experiences which will help him to determine his relative abilities to work with people, to manipulate tools, to sense his presence in his environment, and to comprehend laws of nature and the processes for behavioral advancements within his community.

The student will be involved with understanding his interests, aptitudes, achievements, temperament, his family peers, his society, and etc.

Economics

Students must learn to see themselves as a productive worker unit who supports his community through efficient positive efforts as a producer and consumer. He must learn that the money he receives for his work is an important factor in determining the behavior of his community through the way in which he spends his money; the way in which he is willing to work for his money; and how this spending gives direction to the use of raw materials for production and consumption of goods and services to be used in his community.

The student must learn what is meant by a fair day's pay for a fair day's work and the implied obligations between the consumers and producers.

World of Work

This area is concerned with the student's development of a method for collecting information about jobs. It also is concerned with the student developing an understanding of what behavior is required to do certain jobs.

Examples of job information include, in part, the following items:

- Job entry levels
- Performance activities
- Working conditions

Education and training requirements
Availability of jobs
Seasonality of jobs
Job status
Advancement possibilities

Education and Training

The student must learn what behavior modifications (education and training) will be expected of him for certain jobs. In doing so he will learn the innate abilities he has and if these abilities can be developed to the level required to perform certain jobs he chooses for his vocation.

Students must learn which educational programs will help them to acquire the experience that will help them to develop the performance behavior required for certain jobs.

Employability and Work Adjustment Skills

This section is concerned with attitude strategies and the importance of the development of successful attitude strategies which are necessary for continued economic gains.

Students must learn how good attitudes are a contribution to their own adjustment and success as well as the success of their community. People are dismissed from their jobs more often because they cannot get along with people than they are because they do not have the skills for their jobs.

Vocational Decision Making

Students must learn a method for making decisions if they are to become employable and well adjusted citizens. They must learn to gather facts about themselves, jobs, and values and how to weigh this information to reach a conclusion as to what work they are able to do and what work they want to do.

Self

In this area the Self as subject is the major focus. Self as subject requires that the person's own feelings, perceptions and beliefs are dealt

with. This requires an internal orientation to the activities as opposed to the external orientation of activities for the other areas.

Seven topics are developed in the broad area SELF. These trace self-awareness, self-acceptance and self-affirmation of the child through interests, aptitudes and abilities, achievement and values and attitudes.

SAMPLE QUESTIONS FOR CAREER MATURITY

Listed on this page are sample questions related to areas of growth and development.

1. Self and Environment

- What things have I done with any degree of success?
- What things have I done that others have commended me for doing exceptionally well?

2. Economics

- How much money have I earned?

3. World of Work

- What jobs have I held? Describe them in detail.

4. Education and Training

- What courses have I taken that would prepare me for an entry job position?

5. Employability and Work Adjustment Skills

- What were the expectations of employers concerning the job I have held?

6. Vocational Decision Making

- Where could I get additional information about jobs and careers?

7. Self

- What are the things I really like to do?
- What are the things that I don't like to do?

III. APPENDIX

- A. Field Trips In Career Development
- B. Procedure For Exploration Trips
- C. Exploration Trip Permission Form
- D. Exploration Trip Report
- E. Job Titles
- F. Resources

FIELD TRIPS IN CAREER DEVELOPMENT

General Student Needs

1. Field trips commonize the background of the students so that there is a basis from which to develop a strong well-rounded instructional program.
2. Because the student is so far removed from his potential career, he needs a broad understanding and exposure to work.
3. Broad off-school-site experiences build readiness for learning by demonstrating that basic skills are essential to a productive work-life.
4. To thoroughly understand a career, the student needs to see the job first hand.
5. Students may not realize all the implications/facets of an occupation in terms of personal interests until they have an exposure to the worker in action.
6. Omission of hands-on experiences may cause a lack of credibility in those courses taught, in the upper levels.
7. While field trips benefit the student, they also benefit the teacher, who, without their assistance, is required to serve as expert on the details of many careers which are not necessarily related to his own speciality.
8. Field trips, when used correctly, can be a source of creating better communication and understanding between business, labor and industry in the community and the school.

Specific Student Needs

Field Trips will do the following:

1. Develop an appreciation/awareness that an individual's skills, talents and senses are used in a variety of ways.
2. Develop an awareness of the importance of responsibility and attitude for one's work.
3. Encourage the development of communication skills. Broad off-school-sites experiences demonstrate need and provide motivation for skill learnings.
4. Develop an awareness of the interdependence of the student and all workers.
5. Develop an awareness that there are many people who have different responsibilities in business, labor and industry.

6. Develop an awareness that workers are not necessarily associated with or limited to a specific location and an understanding that there are many kinds of work within specific sites/fields.

GUIDELINES FOR IMPLEMENTATION OF FIELD TRIPS IN CAREER DEVELOPMENT

1. The local administrator is responsible for observance of the guidelines by participating staff members.
2. The local administrator should take responsibility for appointing a person to finalize field trip arrangements.
3. There should be planning of each trip well in advance.
4. Teachers should make field trip plans in consideration of/consultation with other teachers who have a teaching responsibility for the pupils.
5. For the convenience of the faculty, field trip information should be given out several days in advance including destination, length of time out of school, and students participating.
6. The teachers should be aware/appreciative of the expense of the trip to the business or industry in relation to the time spent hosting visitors.
7. Teachers should justify the trip in relation to their instructional program.
8. Teachers who desire to take a particular field trip should plan the trip together, although they may not go together.
9. The faculty of each school may prepare a list of meaningful walking trips utilizing the resources of the local community.
10. After the arrangements have been made, and before the trip, there should be communication between the teacher and the contact person at the place where they are going to clarify teacher expectations.
11. Students should be adequately supervised not only for their safety, but to minimize the interruption to business or industry.
12. There should be well planned pre- and post-activities for each trip.
13. After each trip, there should be a note of appreciation to the business or industry. The teacher may communicate the extent to which expectations were met.
14. A follow-up report concerning the value of the trip and results relating to the specific reason for the trip should be submitted to the administrator/coordinator.
15. Identify the businesses and industries of the Cincinnati community that have only one representative (i.e. the phone company) and those businesses and industries that have multiple representatives in this community (i.e. bakeries, garages).

16. To avoid overloading of limited field trip sites, and to maintain privileges, it is necessary to clear requests for these trips through a central clearing office to be designated by Jack Ford.
17. Teachers may build a list of trips and experiences that parents could provide for their children outside of school hours.

PROCEDURE FOR EXPLORATION TRIPS

SCHEDULE CONSIDERATIONS:

An opportunity is to be provided for students to visit cooperating organizations in small groups for a highly personalized and individualized experience directly related to their career interests. It is essential to minimize the burden on cooperating organizations and to distribute this burden among all community resources and throughout the school year. To accomplish this, trips must be scheduled from the beginning of the school year, and be evenly spaced during the year until every student has been accommodated. The students in a quarter length exploration class may, therefore, participate in an exploration trip prior to, during, or following the time that the course is in progress.

PROCEDURES:

Once each month, or even less frequently, the teacher will need to:

1. Place a single phone call to a cooperating organization to set the date and time for the trip.
2. Notify Mr. Jerome Cousins (Education Center, 230 East Ninth St.) of the date and time for the trip.
3. Select six students from the Career Exploration class list.
4. Send permission slips and trip report forms to the selected students via their homerooms.

Permission slips and report forms are illustrated on the following pages. These forms should be reproduced from this curriculum guide as required.

The career committee chairman or coordinator will provide you with a list of organizations which are known to be willing and able to accommodate your students. Addresses, phone numbers and names of persons to contact will be provided.

CAREER EXPLORATION TRIP PERMISSION FORM

You are schedule for _____
(Career Course Title)
which meets 1-2-3-4 quarter. Exploration trips will be scheduled throughout
the year regardless of whether the course is in session.

A trip has been schedule for _____ to _____
(Date) (Name of Company)
Please have this form signed and return to _____
(Teacher's Name)
_____ before _____
(Room) (Date)

My son/daughter _____ has my permission
to visit _____ on _____ with
the Career Exploration Course _____. The
group will return to school upon completion of the tour. There will be
about six students in each group.

Parent/Guardian Signature

Date

The following teachers have been informed of my absence from class. (Teachers'
signatures required.)

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

EXPLORATION TRIP REPORT

1. Course Title _____

2. Student's Name _____

3. Organization or Company _____

Address _____

4. Major Products or Service:

1. _____ 4. _____

2. _____ 5. _____

3. _____ 6. _____

5. Major Types of Jobs:

1. _____ 4. _____

2. _____ 5. _____

3. _____ 6. _____

6. What did you like best about this trip?

7. Did you see any jobs that you would like to do? List them.

8. What did you learn from this tour?

Signature
Representative of Organization
Visited

F. Job Titles

	<u>Job Title</u>	<u>D.O.T. Code</u>	<u>Page</u>
1.	Photography and Motion Picture Camera Work *	143.062	94
2.	Film Technician *	962.885	273
3.	Dark Room Technicians (Developers) *	976.381 976.885	197 197
4.	Film Developers (Motion Pictures)	976.782 976.381 976.885	197 197 197
5.	Film Cutter (Any Individual)	976.884	273
6.	Cameraman, Animation *	143.382	273
7.	Commercial Photographer *	143.062	527
8.	Portrait Photographer *	143.062	527
9.	Scientific Photographer *	143.282	527
10.	Camera Repairman *	714.28	94
11.	Camera Inspector	714.684	93
12.	Camera Assembler	714.381	26
13.	Photographer, Aerial *	143.382	527
14.	Photographer, Finish	143.382	527
15.	Photographer, Helper *	976.887	527
16.	Photographer, Finisher	976.886	527
17.	Photo Checker and Assembler *	976.687	526
18.	Photography for Educational Sales *	143.062	94
19.	Photographer Engineer	019.081	527
20.	Photograph Retoucher	970.281	528
21.	Machinist, Motion Picture Equipment *	714.281	439
22.	Television - Film Field Coordinator	143.168	729
23.	Video Camera Engineer *		

* Indicates titles included in exploration activities. Others are related careers.

Photographic Apparatus and Materials Industry

Additional career possibilities in industrial and technical fields related to photography are listed below.

This industry includes jobs concerned with the manufacture of photographic apparatus, equipment, parts, attachments, and accessories, such as still and motion picture cameras and projection apparatus; photocopy and microfilm equipment; blueprinting and diazotype (white printing) machines; tripods, plate holders, film rewinders and reels; developing tanks, sensitized film, paper, cloth, dry plates and films; lantern and stereopticon slides, and slide viewers. The manufacture of lenses is included in the Optical Goods Industry.

Assembler, Photographic Equipment	714.381	24-26
Assembler, Plastic Parts (Photo)	714.884	26
Bellows Maker	714.884	50
Blue-Print Paper Coating Machine Operator	534.782	515
Camera Inspector	714.684	93
Dental X-Ray Film Assembler	714.887	194
Dye Mixer	550.885	475
Field Service Engineer	826.281	271
Film Inspector & other related positions	559.782	273
Photographer Engineer & other related positions	019.081	527-528
Screen Examiners & other related positions	960.382	630-631

G. Resources

1. Publications Defining Jobs.
 - a. Occupational Outlook Handbook 1972-3 Edition
 - b. Encyclopedia of Careers and Vocational Guidance
 - c. Dictionary of Occupational Titles
2. Career Kits
 - a. Largo Kits
 - b. S.R.A. Career Kits
3. Textbooks
 - a. World of Communication
(Teacher-student handbooks)
 - b. Find a Career in Photography
Robert E. Hood - Aiken Library
 - c. Your Future in Photography
Victor Keppler - Aiken Library
 - d. Time Life Series on Photography
Aiken Library
4. Publication
 - a. Cincinnati Post-Time s Star
Jack Klumpe series on Photography
 - b. Popular Photography
Aiken Library
5. Field Trips
 - a. Fas-Foto
2070 Reading Road, Cincinnati
421-6620
 - b. Resource Center
Cincinnati Public Schools
369-4755
 - c. Observatory, University of Cincinnati
321-5186
 - d. WCET
2222 Chickasaw - 381-4033

5. Field Trips (Continued)

- e. WXIX
10490 Taconic Terrace 772-1293
- f. Rosenthal Printers
9933 Alliance Road
Industrial Photography
984-0710

6. Resource People

- a. Don Schroeder
Resource Center 369-4755
- b. John Ertel - Art Department
Aiken Senior High 681-8484
- c. John Brunner, Counselor
Courter Tech. Senior High 681-1445
(Portrait & Wedding)
- d. Jack Hilton, Business Agent
Local 327 - Projectionist 631-4444
- e. Jack Klumpe
Post-Times Star 721-1111 (308)
- f. Jim O'Rourke
N.Y. Technical Institute of Cincinnati
(Electronics) 421-1850
- g. Paul Heiselman
(Camera repairman) 531-5678
- h. Paul Nohr
Astronomical Society of Cincinnati
661-0774
- i. Commanding Officer
Corps of Engineers
Federal Office Building 684-3001
(aerial photography)
- j. Dr. Daniel Green
President of Professional Photographers of
Greater Cincinnati 441-3544
- k. Dennis Waughtal
Eastman Kodak
Technical Sales
14 Knollcrest Drive
Cincinnati, Ohio 45237 761-9343

6. Resource People (Continued)
 1. Thomas Runck
Color-Pix Laboratory
621-5619
7. Audio Visual Aids
 - a. Kodak Slide Series
 - 1) Photography Is
 - 2) Ideas Won't Keep
 - 3) World's Within Worlds, Aiken Senior High
 - b. Counselor Films Inc. (16 mm)
 - 1) Is A Career As A Technician For You?
 - 2) Is A Sales Career For You?
 - 3) Is A Career In Clerical Work For You?
 - 4) Is A Career In Electronics Manufacturing For You?
Resource Center - Mr. Lamping
 - c. Sandler Films
 - 1) What Do I Look Like To Others?
 - 2) I Want To Work For Your Company
Resource Center - Mr. Lamping
 - d. Images of Man: Scholastics Concerned Photographer Program
(records, filmstrips, student-teacher guides)
 - e. Modern Talking Picture Service, Inc.
9 Garfield Place
Cincinnati, Ohio
 - f. United Artist Co. 241-1546
 - g. Levy's Film & Projection Service
1648 Pullan Avenue
Cincinnati, Ohio 45223
Walt Disney Distributor
(8 min. single reel cartoons \$4.00 each
25 min. films - \$10.00 ea. May charge admission
to cover rental.)

8. Suggested films from Resource Center

- a. Mapping The Earth's Surface 823
(aerial Photo) 16 min. color 1969
- b. Photography...Anatomy Of Camera And Film 700
12 min. color 1967
- c. Weapons of Gordon Parks 737
28 min. color 1968
Photojournalism
- d. Discovering Line 1963 - 17 min. 779
- e. Discovering Dark And Light 1965 - 18 min. 780
- f. Discovering form in Art 1967 - 21 min. 781
779-781 are suggested in evaluating composition etc.
All are color.

9. Unusual Photography

- a. Films at Hamilton County Library
The Perils Of Priscilla
Dance Squared
- b. Still Life Composition (2x2 slides)
11,500 - 48 color 1952
- c. Making Things Move - P
64 11 min. color (film)