



DOCUMENT RESUME

ED 107 855

CE 003 957

TITLE Career Education: [Junior High.]  
 INSTITUTION Cortland-Madison Board of Cooperative Educational Services, Homer, N.Y.  
 PUB DATE 74  
 NOTE 158p.; For related documents, see CE 003 950-6 and CE 003 958

EDRS PRICE MF-\$0.76 HC-\$8.24 PLUS POSTAGE  
 DESCRIPTORS \*Career Awareness; Career Choice; \*Career Education; Commercial Art; \*Curriculum Guides; Foreign Countries; Industrial Arts; Instructional Materials; Integrated Curriculum; Junior High Schools; Language Arts; \*Learning Activities; Mathematics Materials; Printing; Resource Materials; Science Materials; \*Social Studies Units; Unit Plan  
 IDENTIFIERS Peoples Republic of China

ABSTRACT

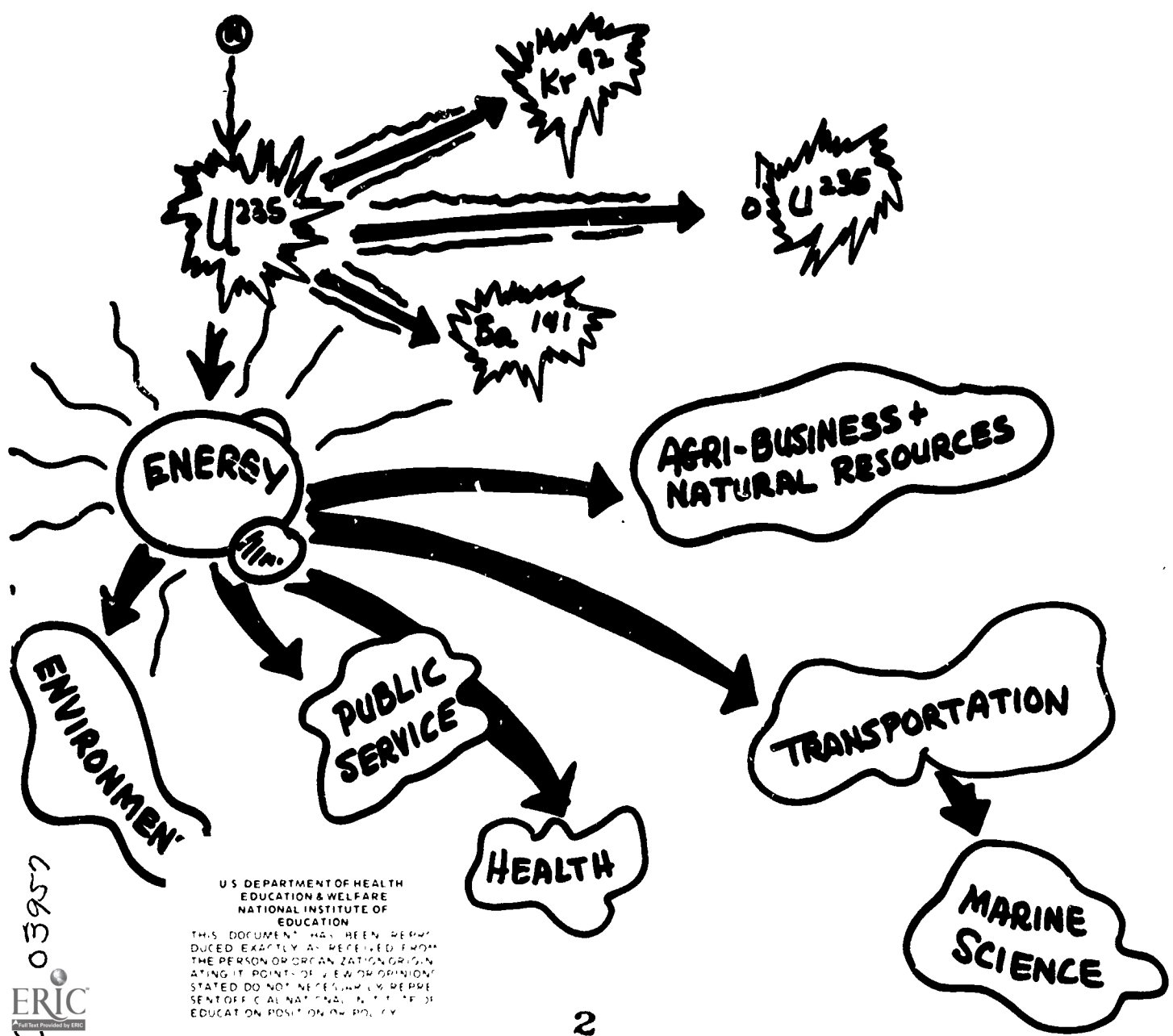
The eighth in a series of nine career education guides contains six unit plans for grades 7-9. In general each unit presents goals, objectives, measuring devices, activities, instructional materials or resources, careers appropriate to the unit, a multimedia bibliography, and a unit evaluation form for teachers. Part one is a science unit which deals with careers related to nuclear energy. Part two is a mathematics unit which covers probability and statistics for everyday living, and their relationship to various career clusters. Part three is a language arts and communication unit which deals with advertising. Part four is social studies unit which covers career motives. Part five is a life and career arts unit on printing which contains the following mini-course packets: relief printing on paper and fabrics, ceramics printing, imprinted foods, tie-dyeing, and industrial and graphic arts. Part six is a social studies unit on the People's Republic of China. (JR)

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# CAREER EDUCATION

## SCIENCE - GRADES 7-9

### CAREERS THROUGH NUCLEAR ENERGY



U.S. DEPARTMENT OF HEALTH  
 EDUCATION & WELFARE  
 NATIONAL INSTITUTE OF  
 EDUCATION

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# CAREER EDUCATION

**PROJECT:** Tri BOCES Planning and Development of a  
Comprehensive Career Education Program K-12

**REGION:** Cayuga BOCES  
Cortland-Madison BOCES  
Tompkins-Seneca-Tioga BOCES

McEvoy Educational Center  
Cortland-Madison BOCES  
Cortland, New York 13045

1974

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## FOREWORD

In a Career Education program, each student is provided with tools and/or information to help him develop a sense of self-awareness, to become cognizant of his abilities, temperaments, aspirations, goals, values, interests and needs in order to make realistic choices in the many career options available to him in the world of work.

The material developed in this unit was based on this premise with the goal of infusing these ideas into the present curriculum.

Career Education is a facet of education that can be related to the whole student and thus provide a vehicle to help youth prepare for the future and implement decisions that will hopefully lead to a rewarding and successful life.

G. Douglas Van Benschoten  
Career Education Manager

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Cover by Robert Gerlach - South Seneca Central School

## INTRODUCTION

When primitive man discovered that fire gave off a source of energy, he utilized that energy to care for his needs, and in this way, slowly began to control his environment. Other sources of energy which earlier societies used were water and wind power. This energy was converted to electrical energy by introducing a generator into the system. As technology improved, the fossil fuels came into use. Coal and petroleum products were utilized for heating and developing larger amounts of electrical energy. These fuels are rapidly becoming depleted, and man must look for new sources of power.

Two new sources of energy under investigation today are solar and nuclear. This module will be concerned with the atomic nucleus, as a potential source of energy, and how it is used in our modern technological society. The student should become aware not only of the available careers associated with nuclear energy, but also future occupations which may be developed as man continues to investigate nuclear energy applications.



SUBJECT AREA

Science

TOPIC

Nuclear Energy

SUGGESTED GRADE LEVEL

7-9

SUBJECT GOALS;

The student will be able to;

1. Analyze nuclear changes which occur in nature or in synthetically irradiated elements.
2. Develop a basic understanding of the structure and function of a nuclear reaction.
3. Discuss practical applications of nuclear energy,

BEHAVIORAL OBJECTIVES:

1. Given a list of fifteen scientific words related to nuclear energy, the student will, with 90% accuracy, define any ten.
2. The student will orally discuss five potential uses for nuclear energy, and possible related occupations.
3. Given the weight of an isotope sample, the student will mathematically compute its remaining nuclear energy over a given length of time, using the half-life of the isotope. He will list the careers in which half-life isotopes are important.

4. The student will write a balanced equation for the decay of any two radioactive elements,
5. The student will accurately label and describe the function of each part of a nuclear reactor. He should be able to indicate five people who will be involved in its operation.
6. The student will demonstrate on the blackboard or by use of an overhead projector, a chain reaction of Uranium-235. Using the career clusters he will be able to demonstrate a "chain reaction" of careers which have evolved because of nuclear energy.
7. The student will describe why a geiger counter or a Wilson cloud chamber is important in discovering the degree of radioactivity in a given area. He will make a list of personnel that must be safeguarded from over exposure to radioactive materials,
8. The student will list the career clusters utilizing the effect of nuclear energy and will select five occupations for each cluster.

#### Career Goals:

1. The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.
2. The student will recognize that different career directions require varying types of educational preparation.
3. The student will understand the variety of occupations in the world of work.
4. The student will recognize the implications of working, with

or without supervision, independently and with others.

**Career Clusters:**

Agri-Business and Natural Resources, Public Service,  
Health, Transportation, Manufacturing, Marine Science.

**Teacher/Student Activities:**

**1. Panel Discussion:**

- A. Should society ban exploration in atomic power?
- B. What are the consequences of nuclear energy in the hands of enemy countries?
- C. Is nuclear power the answer to man's energy crisis?

**2. Class Discussion:**

Using the career clusters, determine in what areas nuclear energy has a role.

**3. Class Discussion:**

Compare a man-made fusion reaction with the sun's thermo-nuclear reaction.

**4. Brainstorm any of the following future uses of nuclear energy and the careers it will create:**

- A. Space Travel
- B. Nuclear-Powered Desalinization
- C. Extraction of Metals from Ores

4. Continued

D. Production of Fertilizers to Enrich Depleted Soil Areas

E. Medicine

5. Roleplaying:

A. A panel consisting of a nuclear physicist, an environmentalist, and industrialist, an agriculturalist, planning how an atomic plant will produce necessary power to a whole country, thereby creating a wealth of occupations.

B. An engineer deciding what construction personnel would be necessary to the safe construction of an atomic plant.

C. A member of the Atomic Energy Commission and an environmentalist discussing the impact of nuclear energy on the environment.

6. Research:

Have the students research and report on any of the following including the people who are involved in these projects:

A. Project Gasbuggy

B. U. S. Atomic Energy's Plowshare Program

C. Uses of Radiation from Isotopes:

a. Sterilization of Medical Equipment

b. Destruction of Insects

c. Production of Beneficial Mutations

- d. Irradiation of Foods
- D. Nuclear Energy for Transportation and Travel
- E. Nuclear Explosives for Blasting
- F. Any Scientist who has aided in the discovery of Radioactivity

7. Construction:

- A. Using styrofoam balls and marbles, construct the chain reaction which occurs using Uranium-235.
- B. Construct an electroscope or a cloud chamber to detect radiation. Use a radium-painted watch or radioactive substance to show escaping particles. List occupations which would protect against over exposure to radioactivity.
- C. Construct a simple reactor identifying the following parts:
  - a. a fuel core
  - b. control rods
  - c. moderator
  - d. coolant
  - e. shielding
- D. Construct models of Hydrogen or Carbon isotopes.
- E. Build a mouse trap/cork model of a chain reaction.

After construction of these projects, have participating groups explain what was done and which people do similar jobs for a living.

## 8. Careers Relating to Nuclear Energy:

- A. Using the career clusters, select the careers that have possible uses for atomic energy. For example; Marine Science-desalinization of water, Agro-Industrial-fertilizers, pure water, eradication of pests, electrical energy for industrial use.
  - B. Have students select any one career cluster and list the possible occupations due to a nuclear power source. List the job description, qualifications, training, duties, responsibilities, hazards involved.
9. Design a model city centering around an atomic power plant and list the occupations which may result from this energy source.

### Resources:

1. Demonstrations available to schools by Atomic Energy Commission, Oak Ridge, Tenn.
2. Invite a Chemist or Physicist from a college to speak on future nuclear power and the careers involved in this area.
3. Invite a nuclear medical technologist from local hospital to demonstrate or discuss use of isotopes and his career: yesterday, today, and tomorrow.
4. Ask local radiologist to speak on radiology in the treatment of cancer and the related careers.
5. Ask engineer from Niagara Mohawk to speak on the occupations involved in the conversion of atomic energy to electrical energy

6. Write to the Atomic Energy Commission for information on nuclear transportation.

Classroom Activities:

1. Read and discuss any unit which deals with nuclear energy.
2. Blackboard demonstrations by teacher and students illustrating fission, fusion, and half-life.
3. If a Geiger Counter is available, check for radioactivity in school.
4. Make a bulletin board display showing the possible occupational centers that may utilize nuclear energy.
5. Report on the use of radioisotopes and related careers.
6. Field Trip: Take a trip to 9 Mile Point for orientation and exploration in atomic energy. Investigate the inter-relationships of careers in order to have this plant a successful operation.

Measuring Devices:

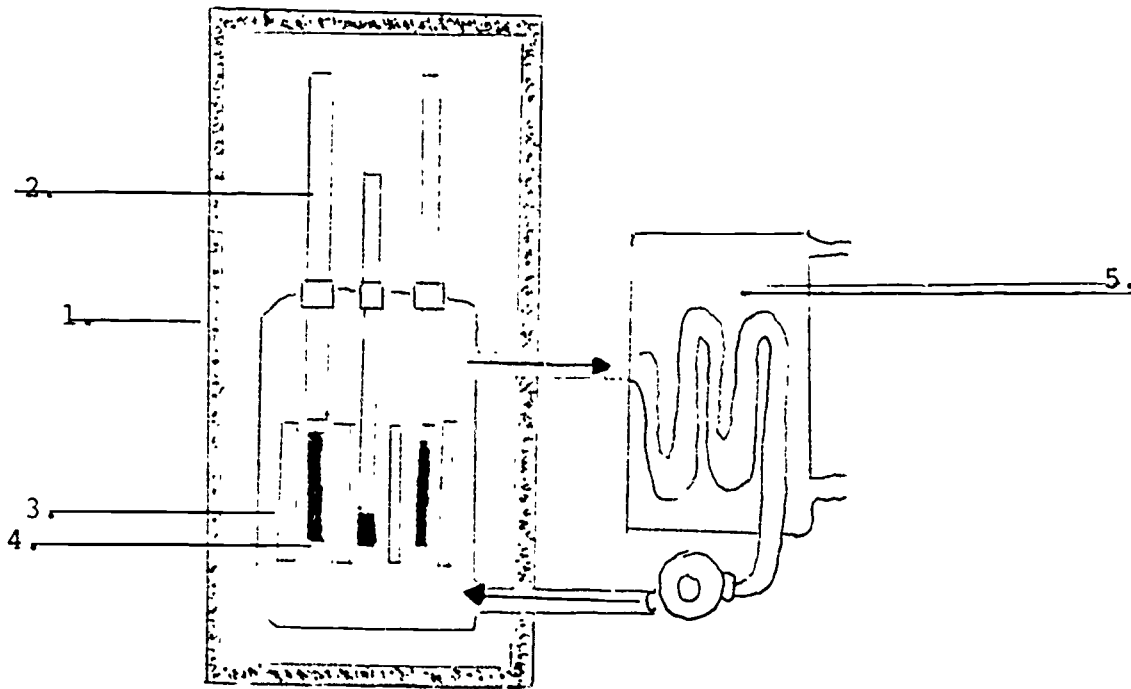
1. Given the following list of scientific terms, the student will define any ten:
  1. Thermonuclear reaction
  2. fission
  3. fusion
  4. half-life
  5. alpha particle
  6. beta particle

7. isotope
8. nuclear reactor
9. radioisotope
10. shielding
11. control rod
12. moderator
13. carbon-14
14. accelerator
15. gamma radiation

2. The student will discuss the use of radioisotopes in radiation therapy, diagnosis and treatment of illness.
3. Given a diagram of a simple nuclear reactor, the student will label and briefly describe the purpose of each part. (INCLUDED)
4. Using the blackboard, the student will compute the remaining activity of a given weight of carbon-14 or cobalt-60 in X number of years.
5. The student will write a report on one potential future use of nuclear energy including careers involved.
6. List ten major careers directly concerned with the use of atomic energy.
7. Debate the impact on the environment by the use of nuclear energy versus fossil fuels as a primary source of power.  
(Focus on the careers that have evolved from the use of these two energy sources.)



WORKSHEET FOR REACTOR



LABEL THE PARTS OF A REACTOR AND BRIEFLY DISCUSS THE FUNCTION OF EACH PART.

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_

## BIBLIOGRAPHY

Bradwein and others, The Earth: Its Changing Form, Harcourt, Brace and World, Inc. 1970

Bradwein and others, Energy: Its Forms and Changes, Harcourt, Brace and World, Inc. 1968

Bradwein and others, Matter: Its Forms and Changes, Harcourt, Brace and World, Inc. 1968

Dorin, Unified Chemistry, Standard Publishing, 1973

Gamow, The Birth and Death of the Sun, New American Library, 1952

Popular Science, "Fusion Power," August 1974,

Silverberg, Men Who Mastered the Atom, Putnam, 1965

AUDIO-VISUAL:

Cortland - BOCES:

Films

832 9 Atomic Energy, Inside the Atom

831 304 Energy and Living things

831 64 We Use Power

Free Films from Bell Telephone Co..

Free Films from Niagara Mohawk

Tompkins-Seneca-Tioga BOCES:

Radiation in Biology MS 915

Transuranium Elements MS 515

Energy and Its Forms MS 151

Atomic Accelerators MS 29

Atomic Energy MS 657

Nuclear Disintegration MS 370

**Cayuga County BOCES:**

**Nuclear Radiation: Uses in Industry 2MP 7168 PIJS**  
**Science and Technology 2 MP 7260 IJS**  
**\*Introducing Atoms and Nuclear Energy IMP 6411 IJ**

<b>Transparencies:</b>	<b>Natural Radiation</b>	<b>81</b>
	<b>Atomic Symbols</b>	<b>82</b>
	<b>The Uranium Series of</b>	
	<b>Radioactive Decay</b>	<b>83</b>
	<b>Half-Life and the</b>	
	<b>Decay Curve</b>	<b>84</b>
	<b>Mass Spectroscope</b>	<b>85</b>
	<b>Cyclotron</b>	<b>86</b>
	<b>Chain Reaction</b>	<b>87</b>
	<b>A Nuclear Reactor</b>	<b>88</b>

FQR

TRI-BOCES CAREER EDUCATION MODULES

Instructor's Name: \_\_\_\_\_

School District: \_\_\_\_\_ Building: \_\_\_\_\_

Module Title: \_\_\_\_\_

Unit Title: \_\_\_\_\_

Grade Level: \_\_\_\_\_ Number of Students: \_\_\_\_\_

1. From the three sections listed below relating to the module, please indicate which section you felt should be improved and comment on the problem experienced.

Suggested Instructional Activities:

Follow-Up Activities:

Resource Materials:

2. If you used an evaluation device with the students, please forward it with this report.
3. How many teaching days and/or teaching periods did you use the modules relating to Career Education.

4. Please check which of the following resources were used in conjunction with this module,

Community Resources \_\_\_\_\_ Field Trips \_\_\_\_\_

5. What did you like about the material presented in this module?
6. How did the students react to material presented in this module?

Additional Comments:

Please return to: G. Douglas Van Benschoten  
Cortland-Madison BOCES  
Clinton Avenue Extension  
Cortland, New York 13045

# CAREER EDUCATION

MATHEMATICS - GRADES 6-8

PROBABILITY *and* STATISTICS  
FOR EVERYDAY LIVING



AGRICULTURAL BUSINESS AND  
NATURAL RESOURCES

103957

# CAREER EDUCATION

**PROJECT:** Tri BOCES Planning and Development of a  
Comprehensive Career Education Program K-12

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## FOREWORD

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G. Douglas Van Benschoten  
Career Education Manager

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**Allan Pabst**

**Homer Intermediate School, Homer**

**Robert Vidulich**

**McGraw Central School, McGraw**

**Cover by Robert Gerlach - South Seneca Central School**

**NOTE TO THE TEACHER:**

This module is designed to approach the unit of statistics and probability in several flexible ways. Grade Level 6-8.

It is suggested :

1. as a supplement and introduction for culminating device to a curriculum limit on statistics.
2. as a facilitators device for classroom activities.
3. enrichment for students in gaining an awareness to careers.

Suggestions to the Teacher:

1. Access the entire unit
2. Decide which activity or activities is(are) most applicable to your class or those that you wish to use.

Subject Area:

Mathematics

Topic:

Probability and Statistics for Everyday Living

Suggested Grade Level:

6-8

Subject Goal:

To study the job clusters of: Agricultural Business and Natural Resources, Marketing and Distribution, Hospitality and Recreation and Health through an approach using probability and statistics.

Performance Objectives:

As a result of this module the student will:

1. Construct a project dealing with statistics (tally, frequency polygon, histogram)
2. Write a job description of a particular statistical career.
3. Compare the results retrieved from a sporting event by using tables.
4. List 5 careers in statistics and probability.
5. State how statistics relate to specific careers of:  
Marketing and Distribution, Agricultural Business and Natural Resources, Hospitality and Recreation and Health,  
e.g. Retail Manager

Career Goal:

To explore and identify jobs that deal with statistics and probability.

Career Clusters:

I. Agricultural Business and Natural Resources

A. Job Related Areas

1. Agway Representative
2. Dairy Processing
3. Agricultural Economist
4. County Agricultural Agent
5. Wildlife Conservationist

## II. Marketing and Distribution

### A. Job Related Areas involving statistics

1. Pollsters- compiles surveys or questionnaires
2. Store Manager
3. Advertising Representatives
4. Salesman
5. Consumer Advocate
6. Automotive Researcher
7. Bakery Foreman

## III. Hospitality and Recreation

### A. Job Related Areas involving statistics

1. Sports Editor
2. Announcer of Sports - T.V. or Radio
3. Score Keepers
4. Team Manager
5. Team Coaches
6. Professional Athletes
7. Gamblers

## IV. Health

### A. Careers involving statistics

1. Medical Technologist
2. Vital Statistician
3. Doctors
4. Nurses
5. County Mental Health Officer
6. County Welfare Commissioner
7. Health Inspector (local and State)

### Suggested Procedure and Activities

1. Discussion of the list of jobs which are mentioned for each career cluster.
2. Invite a guest speaker from Agway, Cortland Bulk Conservation Department or comparable business. Explain how statistics is used in his field.
3. Have students read want ads or classified section of various newspapers or journals relating to and bring these articles to class. (Sunday N.Y. Times, Herald American).

4. Show the movie entitled "Consumer Power Advertising" (refer to BOCES Audio Visual)

Description: To what extent does advertising make the consumer consume more than he needs? How is advertising necessary to our free economy? Mr. Ralph Nader, well known consumer advocate addresses himself to these and other provocative questions regarding advertising's effect on our daily lives.

4. (a)

Discussion following movie related to careers that use statistics.

5. Assign students to attend a sporting event and report the possible career uses of statistics in that event. (How many different careers are found in sports that use statistics?)



6. Assign or select students to choose a top atheletic team and have the students determine why that team became champions. Discouss a professional player's use of statistics.
7. Select students to draw up a questionnaire or have an opinion poll set up in your school. (What type of a career person uses an opinion poll?)
8. Plan a field trip to the Conservation Office and find out how statistics are used to determine the count of various forms of wildlife, (deer, etc.). Have students construct questions for interview.
9. Use the "Information Almanac Please" to chart or graph the increase of automobile sales or various forms, insurance, etc. (Include mean, average, mode and median statistics.)
10. Have students discuss car insurance rates and how this rate differs for various age brackets. How are statistics used in this particular field?
11. Have students complete a portfolio or career guidebook containing information from their activities and materials they have collected from newspapers, magazines, or journals.

12. Have students follow a particular stock and investigate whether the average of this stock has gone up or down. Conduct a discussion of the stock Exchange and career possibilities as brokers, etc.
13. Have students select a job or career and prepare an interview sheet to question a Career Representative to determine how he uses statistics.

### Measuring Devices:

Methods of grading or evaluating a student may vary with each teacher's philosophy. Therefore, alternatives for evaluation are flexible.

1. At the end of this module students will break up into small groups and give individual reports on their work. Following this report, evaluation will take place. Each student may give feedback and express feelings as to grade they feel they should attain.
2. If testing is used during this unit, include definition of jobs and test the students knowledge of career. Fill in blanks, crossword puzzle, bonus questions, etc. for mentioning careers.
3. Grade Scrap Book or Portfolio
4. Grade Project constructed
5. Calculating proficiency in uses of ratios, graphs, frequencies, mean, median, mode, averages through class work.

Specific Bibliography:

The following material is found at the Auburn BOCES but may be obtained from the Cortland BOCES center on request.

Statistician, Applied "Career Opportunities" part 2, filmstrip popular science 1966-67. 3 filmstrips color 35 mm includes teacher guides. Contents: Careers in science, jobs in mathematics, automation. (cluster 17).

Statistician, Mathematical Orientation Skills, Jobs in Mathematics". Chicago, Science Research Associates, 1965 48 p. (Job Family Services No. 8) (cluster 6)

Statistician, Applied Orientations skills - American Occupations (audiotapes) EAP, 1972, (cluster 16)

The following materials may be obtained free by writing to the following address:

Statistician

"Economics Research Service"

U. S. Department of Agriculture

Division of Personnel

Washington, D. C. 20250

**Agricultural-Business and Natural Resources**

**Clusters:**

**Films:**

Careers in the Animal Industry NDEA Title II Slide  
Cassette Series

Forestry Aids 8 mm Film loop

IMP 7553 Ecology and Conservation

Cayuga BOCES 8 mm film, loops, pamphlets, cassetts,  
transparencies

**Books:**

Dodd, - Careers for the 70's-Conservation, Cromwell-  
Collier Press, N.Y. 1971

Frazier, Julin, Your Career In Landscape Architecture,  
Richards Rosen Press, 1967.

Hanaburgh - Your Future in the Forestry Industry, Richards,  
Rosen Press 1971

McCory - The World of the Veterinarian, Lathrop, Lee  
and Shepard Co. 1964

Why Not be an Urban Planner? Careers for Women

Pamphlet write to:

Superintendent of Documents, U.S. Government Printing Office  
Washington, D. C. (10¢)

Career Education in the Environment

60LY 1972

Career Opportunities: Ecology Conservation and Environmental  
Control

Orient Skills Car 1971

What's it like to be a scientist? booklet..... write to:

Educational Relations, General Electric Co., New York, N. Y. 10022

Statistician

"Careers in Statistics"

American Statistical Association, 806 15th St., Washington, D.C.

Meador - Lumberjack, Harcourt Brace and Co. 1934

Pinney - Your Future in the Nursery Industry, Richards,  
Rosen Press Inc. 1967

Sidney - Career Opportunities - Agriculture, Forestry,  
Oceanographic Techniques , Doubleday 1967

Science Research Associates - Jobs in Outdoor Work 1965

Science Research Associates - Jobs in Agriculture 1965

Stone - Careers in Agri-business and Industry -The  
Interstate Publishers and Printers 1970

Swanson - Looking Forward to a Career in Agriculture -  
Dillon Press 1971

Whitney, Whitney - Animal Doctor, Dillon Press, 1973

General Films 16 mm

"Introduction to Graphs" 11 min. JS 831 170 Co. Ma. BOCES  
P. 65 IMP6765 Cay. Co. BOCES

"Mean, Median, Mode" 832 267 13 min. JS.

"Probability" 832 275 12 min. JS

Transparency

Introduction to Probability # 245 Math 35 Tom. Sen. BOCES  
Cay. Co. BOCES M-35, p. 197

#8 Health - "You Can Work In the Health Services"  
by Betty Warner Diet John Day Company

Neal, Harry Edward - Disease Detectives 8 Orient Skills  
Nea 1959

Baker, Eugene, "I Want to Be a Baseball Player"  
Awareness

Baker, Eugene, "I Want to Be a Football Player"  
Awareness

Bronin, Andrew, "I Know a Football Player"  
Awareness

Davis, Mary " Careers in Baseball"  
Awareness

Issac's Stan, "Careers and Opportunities in Sports"  
Elias Baseball Statistical Bureau in New York

12. Kaplan, Albert a.

Careers in Department Store Merchandising

12 Orient Skills, Kap 1962

Neifield, M. R.

Your Future in the Credit Field

12 Orient Skills Nei. 1963

14. The Police Department - film loop 14 Aware Pol 1970



EVALUATION REACTION FORM

FOR

TRI-BOCES CAREER EDUCATION MODULES

Instructor's Name: \_\_\_\_\_

School District: \_\_\_\_\_ Building: \_\_\_\_\_

Module Title: \_\_\_\_\_

Unit Title: \_\_\_\_\_

Grade Level: \_\_\_\_\_ Number of Students: \_\_\_\_\_

1. From the three sections listed below relating to the module, please indicate which section you felt should be improved and comment on the problem experienced.

Suggested Instructional Activities:

Follow-Up Activities:

Resource Materials:

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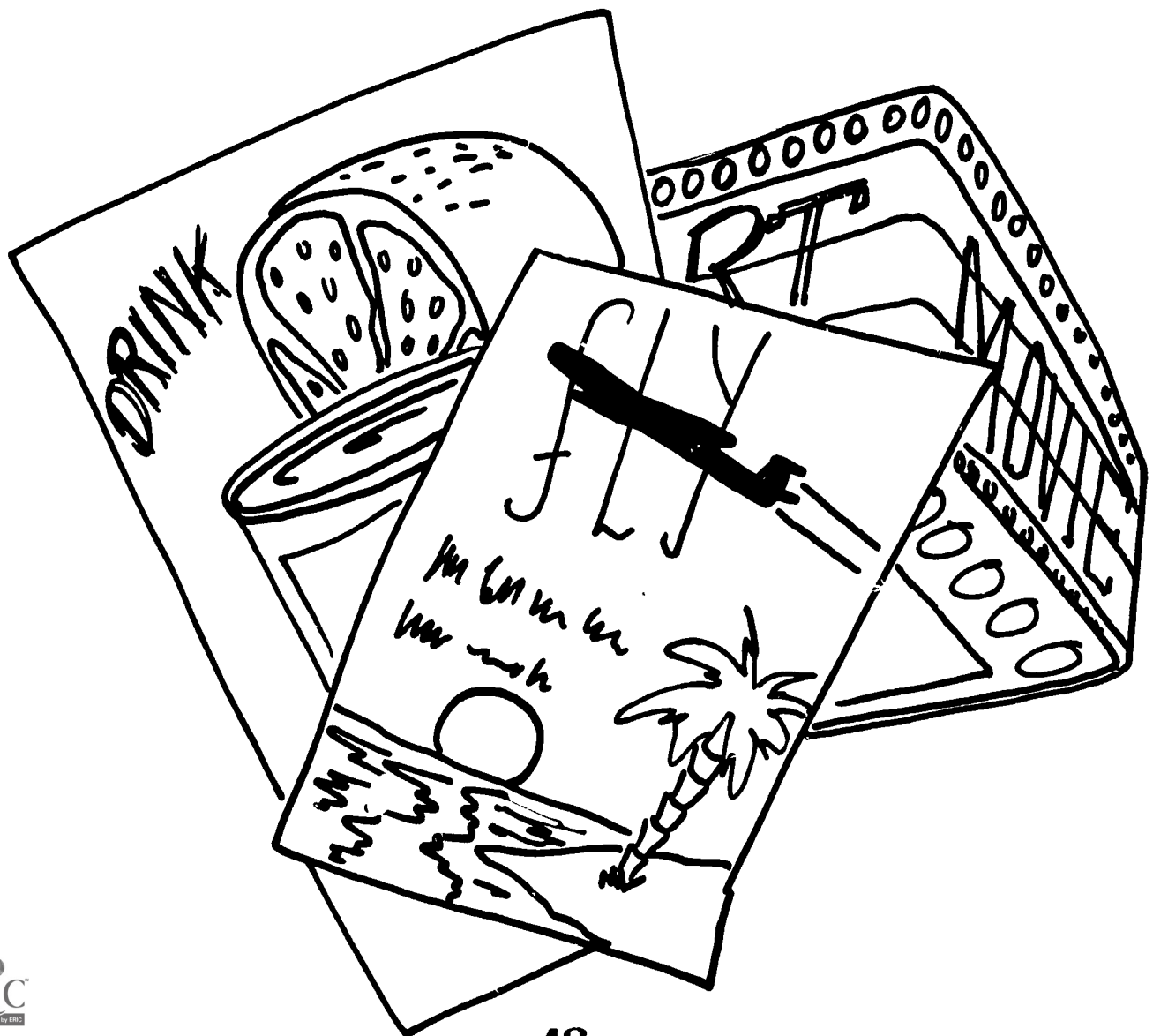
Additional Comments:

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# CAREER EDUCATION

LANGUAGE ARTS : COMMUNICATION  
GRADES 7+8

## ADVERTISING



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Cover by Robert Gerlach - South Seneca Central School

## INTRODUCTION:

This module on advertising can be used in English classes as a means of teaching reading, oral expression, writing and listening skills. It can be utilized at any point during the school year. It is particularly designed for junior high students who are reading below grade level.



Subject Area:

Language Arts, Communication

Topic:

Advertising as Related to mass media

Grade Level:

Grades 7 & 8 (particularly for students who read below grade level)

Subject Goals:

1. to learn to understand advertising techniques as used in newspapers, magazines and T. V.
2. to make students aware of the various career opportunities in the area of advertising.
3. to improve reading and writing skills through a study of advertising.

Behavioral Objectives: (working in small groups)

1. the students will be able to develop a T.V. ad for a fictitious product.
2. Given a list of careers related to advertising and T.V., the students will be able to explain orally the duties and qualifications of three of the careers.

Career Goals:

Self Awareness:

The student will learn about himself in relation to his culture through understanding and experiencing roles.

Educational Awareness:

The student will recognize that learning is a continuous process occurring in and outside of school.

Career Awareness:

The student will understand the way in which occupations relate to needs and functions of society.

Economic Awareness:

The student will understand the relationship of his present and anticipated occupational status to economic trends found in his community , state, and nation.

Beginning Competency:

The student will develop the skills required to identify the objectives of a task, specific resources required, outline procedures, perform operations, and evaluate the products.

Employability Skills:

The student will recognize the implications of working with and without supervision, independently and with others.

Career Clusters:

Communication and media

Consumer And Homemaking Education

Business

Marketing and Distribution

Specific Careers:

- |                           |                              |
|---------------------------|------------------------------|
| 1. Commercial artist      | 15. research                 |
| 2. layout person (editor) | 16. maintenance              |
| 3. printer                | 17. secretarial              |
| 4. typesetter             | 18. clerk - book-keeping     |
| 5. photographer           | 19. record or film librarian |
| 6. sales                  | 20. idea people              |
| 7. camera persons         | 21. past-up                  |
| 8. directors              | 22. prompter                 |
| 9. actors                 |                              |
| 10. writers               |                              |
| 11. announcers            |                              |
| 12. props and costumes    |                              |
| 13. engineer              |                              |
| 14. lighting person       |                              |

Activities:

1. Last year some students formed a Committee for the Rejection of Obnoxious Commercials. Have students tell which commercials they find irritating and why.
  
2. a) Discuss the types of advertising appeals:
  - I. Basic - to buy a product  
facts about a product
  - II. Senses - ad which deals with an appeal to:  
looks, sounds, tastes, feels, smells
  - III. Nostalgia
  - IV. Expert opinions
  - V. Famous peoples' opinions
  - VI. Something new
  - VII. Romantic appeal
  - VIII. Humor
  - b) Have students make up commercials in each category.
  - c) Present them to the class
  
3. Research the CIEO awards given for commercials and present them to the prize winning commercials.
  
4. Collect a series of commercials and ask class to identify the appeal used.

5. Study magazine and newspaper ads and study the effects of design, color, container shape and word choice. Examine the effect of product names.

1) Which of the following names would advertisers choose?

Car - Turtle or Leopard

Perfume - Moose Oil or Queen Mist

Bicycle - Puffer or Zinger

Floor Cleaner - Gunk or Sparkle

6. Take a look at advertising claims. Have students test some of them. If they find claims that are false, students could draft a letter of complaint to the company.

Examples:

Butter - Oleo - "It's not nice to fool Mother Nature"

Raisin Bran - "Contains two cups of raisins"

Coke - "It's the real thing"

Peanut butter - "You can smell the difference"

Snickers candy bar - "contains a bag full of peanuts"

Paper towels - "Is one more absorbant than others?"

Have each student bring in an ad and explain its appeal orally to the class.

7. Have students research the workings of an ad agency:
  - a. What it does
  - b. How it makes money
  - c. How it conducts research
  - d. How it conducts an ad campaign
3. What a story board is
  - f. Planning production
  - g. Casting
  - h. Pre-production meeting
  - i. Final casting
  - j. Filming
  - k. Editing
  - l. Sound and Music

Information from - Scholastic Scope Vol. 20 No. 2

Feb. 7, 1974

For copies write to:

Scholastic Scope

902 Sylvan Avenue

Englewood Cliffs, N.J. 07632

Record Scope Sound Page

15 Advertising Appeals included with article

8. Divide the students into small groups (about 4 each) and have each group think up a product and devise a short T. V. ad using the Ad Agency procedures. They should assign parts and practice the ad with the necessary props and costumes, then have groups video tape their ads and play them for the class.
9. Have students list all careers related to advertising and T.V. (Use Dictionary of Occupational Title)
10. Have students research occupational possibilities in the Work-Widening Occupational Goals Kit (SRA)
11. Have class play "Whats my Line". Four students can be the panel asking questions of each contestant trying to determine his career.
12. Compare T. V. ad and newspaper or magazine ads for process of production, appeal, effectiveness and cost.
13. Invite the advertising manager of the local newspaper to class. Have him explain the requirements and skills needed to fulfill the various career opportunities related to newspaper advertising.

Measuring Devices :

1. the student will explain a magazine article and its appeal orally to the class.
2. Groups will video tape T.V. ads. This will provide an opportunity for teacher and student evaluation
3. In the game, What's My Line, the teacher can observe what has been learned about the various related careers.



**Instructional Materials:**

1. Read magazine - April 13, 1973 - Published by Xerox Corporation
2. Scope Magazine - February 7, 1974 - Published by Scholastic Magazines, Inc.
3. Work Widening Occupational Kit (SRA)

**Follow-Up Activities:**

1. Invite someone from an advertising agency to speak.
2. Have students observe T.V. and magazines throughout the years looking for further examples of concepts discussed in this unit.
3. Trace an ad from conception to production with reference to all the people and/or careers involved.
4. Visit a T.V. studio and observe its operation.

Resources:

Tompkins-Seneca-Tioga BOCES

Transparancies:

Home Economics: Evaluation Advertising 3034

Vocational No. 25 Consumer Motivations and Behavior 405

Cortland-Madison BOCES

Films

Advertising Information 832 273 Persuasion or Deception

12 m c s

Cayuga BOCES

Books

Your Career In Advertising by George Johnson

Career Research:

Work Widening Occupational Goals Kit SRA

Filmstrips - Sound

People Who Influence Others

Guidance Associates

4 filmstrips col 35 mm +

4 cassettes

Filmstrip 2 - Advertising Assistant

Art Careers in Advertising

Educational Dimensions, 1968

1 filmstrip col. 35 mm + 1 cassette

1. illustrator

2. copywriter

3. photographer, commercial

4. compositor

Careers in Television

Educational Dimensions 1968

1 filmstrip col 35 mm + 1 cassette

filmstrip - Career as a T.V. Producer

Cassette - Careers in Television (T.V.) producer

Writing Careers in Advertising

Educational Dimensions, 1968

1 filmstrip col 35 mm + 1 cassette

filmstrip title: Career as a Copywriter

Record

Scope Sound Page

Scholastic Scope Vol. 20 No. 2

Produced by H. William Stine

Written by: Lewis Gardner

Eva - tone Sound Sheets

Deerfield, Illinois

EVALUATION REACTION FORM

FOR

CAREER EDUCATION MODULES

Tri-Boces

Cayuga, Cortland-Madison, Tompkins-Seneca-Tioga

Instructor's Name: \_\_\_\_\_

School District: \_\_\_\_\_ Building: \_\_\_\_\_

Module Title: \_\_\_\_\_

Unit Title: \_\_\_\_\_

Grade Level: \_\_\_\_\_ Number of Students: \_\_\_\_\_

1. From the three sections listed below relating to the module, please check any section that you felt was a problem and comment on the problem experienced.

Suggested Instructional Activities:

Follow-up Activities:

Resource Materials:

Comments:

2. How did you evaluate the students in the module?
3. If you used an evaluation devise with the students, please forward it with this report.

4. If you made any changes in this module or feel changes should be made, please indicate briefly what changes you recommend.
  
5. How many teaching days and/or teaching periods did you use the modules relating to Career Education.
  
6. What community resources were used in presenting material?
  
7. Did you use resource people? If so, please indicate career represented, not names.
  
8. Did you go on field trips? If so, please indicate names and places.

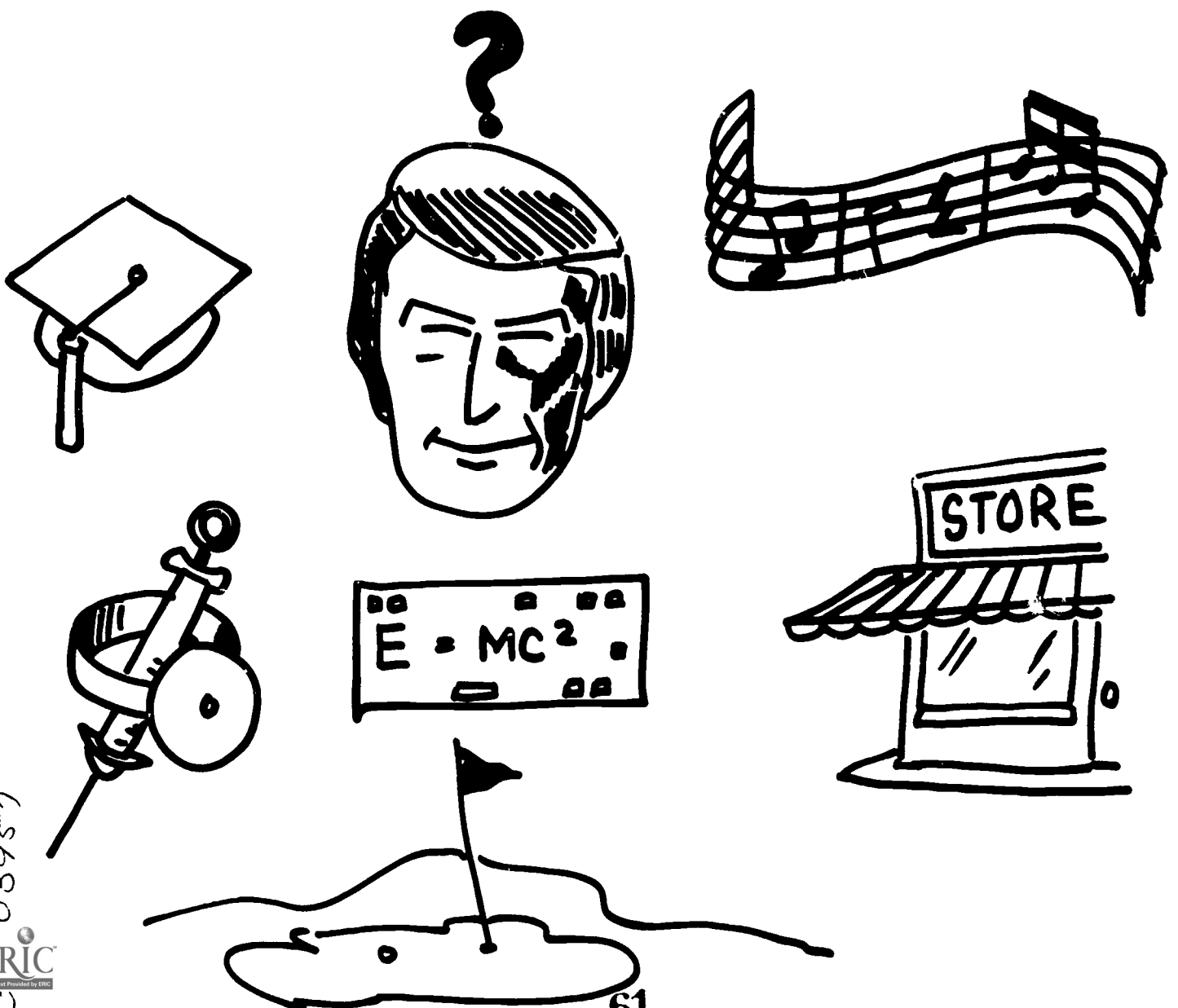
COMMENTS:

Please return to: G. Douglas Van Benschoten  
Cortland-Madison BOCES  
Clinton Avenue Extension  
Cortland, New York 13045

# CAREER EDUCATION

SOCIAL STUDIES ~ GRADES 7-9

## CAREER MOTIVES



03957

# CAREER EDUCATION

**PROJECT:** Tri BOCES Planning and Development of a  
Comprehensive Career Education Program K-12

**REGION:** Cayuga BOCES  
Cortland-Madison BOCES  
Tompkins-Seneca-Tioga BOCES

McEvoy Educational Center  
Cortland-Madison BOCES  
Cortland, New York 13045

1974

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## FOREWORD

In a Career Education program, each student is provided with tools and/or information to help him develop a sense of self-awareness, to become cognizant of his abilities, temperaments, aspirations, goals, values, interests and needs in order to make realistic choices in the many career options available to him in the world of work.

The material developed in this unit was based on this premise with the goal of infusing these ideas into the present curriculum.

Career Education is a facet of education that can be related to the whole student and thus provide a vehicle to help youth prepare for the future and implement decisions that will hopefully lead to a rewarding and successful life.

G. Douglas Van Benschoten  
Career Education Manager

PROFESSIONAL PROJECT STAFF

John Durkee	Homer Central School
Mary Ann Kane	St. Mary's School
Mary Richards	DeWitt Junior High School
Martin Sweeney	Homer Central School

Cover by Robert Gerlach - South Seneca Central School

## CAREER EDUCATION MODULE

### Subject Area:

Junior High Social Studies

### Topic:

Career Motives

### Suggested Grade Levels:

Grades 7, 8, and 9

This module may be infused into a social studies course or treated as a separate career unit. If it is infused into the social studies curriculum, it may be part of any unit of cultural or historical study, but it is suggested that it serve as a culminating exercise at the conclusion of any such unit.

No attempt is made to encourage a final career choice, but rather to explore possible career choices, the factors which may affect career choices, and if desired, to compare the factors with those of other cultures, past or present.

For example, a seventh grade student, having completed the unit of study on the Iroquois Indian culture and the unit on life in the Age of Homespun, might derive much benefit from comparing his own career choice motives, with the possible motives of an Iroquois youngster and those of a youngster of the Homespun period. Comparable exercises can be employed in an eighth grade U. S. History curriculum or in a ninth grade comparative curriculum. This module is designed to be flexible and open

to modifications by each teacher, according to the needs of the students.

Subject Goal:

To develop an awareness within the students of the possible motives influencing career choices.

Behavioral Objectives:

1. Shown the 15 career cluster symbols, the student will identify five occupations within each cluster area.
2. Given a list of five motivating factors, the student will select one occupation and state how much each factor might have influenced that choice.
3. Given a list of 16 career motives, the student will contrast the importance of each career motive with those of other classroom students, or those of youngsters of other cultures or historical time periods. Appendix I
4. Given a list of 16 career motives, the student will rank each motive in order of importance to himself. Appendix II
5. The student will construct and present a collage which interprets an evaluation of his own career motives.
6. Given a list of 16 career motives, the student will select 8 of these and indicate the amount of importance he or she assigns to each on a "piegraph".

Career Goals:

1. To develop within the student a positive attitude toward the world of work and its worth.
2. To enable the student to consider various factors which might influence his own career choice.

## Career Elements:

### Self Awareness

- The student will recognize the relationship of his interests, aptitudes, and achievements to the realization of his career goals.
- The student will recognize that self-knowledge is related to a set or system of values unique to him.

### Educational Awareness

- The student will recognize that educational experiences are a part of his career development.
- The student will recognize that different career directions require varying types of educational preparation.

### Career Awareness

- The student will understand the variety of occupations found in the world of work.
- The student will recognize that his career includes progression through developmental stages of educational and occupational experiences.

### Decision Making

- The student will identify and state personal goals as part of making career decisions.

### Attitudes and Appreciations

- The student will recognize the responsibilities to himself and others when accepting a task or job.
- The student will recognize individual differences and become tolerant in his interpersonal relationships.

Teacher/Student Activities: (to be completed in suggested order)

1. Introduce the module by a picture-study of the fifteen, numbered career clusters. Use an inquiry approach with fifteen transparencies to develop an awareness of the kinds of occupations within each cluster. Appendix I
  
2. The student will choose one of the fifteen career clusters and explore one occupation within the chosen cluster via:
  - a. interview of a person in the chosen occupation, or
  - b. investigation into the Dictionary of Occupational Titles or other A-V resources.

The student should determine:

1. required training
2. required talents
3. income range
4. likes or dislikes about career choice
5. previous work experiences or other motives influencing the career choice

3. The student will develop the career motives chart at least once for himself. It is strongly suggested that the student first fill out two other charts in which he role-plays a youngster of another culture or historical time period studied in the given social studies content area, and make imagined responses on the charts for comparative and discussion purposes. Appendix II.
4. The student will rank the numbered list of motives on the Career Motives Chart, greatest to least importance. The student should be advised that he need not have a particular career choice in mind in doing this exercise. Discuss and compare the class responses. The teacher should elicit from the students positive attitudes (tolerance) toward all career choice motives and all careers, and should emphasize the value and interdependence of work areas. Appendix II
5. The student will be encouraged to develop and present a collage which is an artistic and verbal interpretation of his own "Career Motives Chart".

Measuring Devices:

1. Teacher/student observation and discussion of shared collages.
2. Teacher prepared check-list for each student to assess student's progress.
3. Pie Graph of career motives (can be used as validity check upon device) Appendix IV.
4. Individual student-teacher conferences

Instructional Materials:

1. Overhead transparency masters of career clusters.
2. Career Motives List
3. Career Motives Chart
4. Pie Graph of Career Motives



Bibliography: Materials are available at Cayuga County BOCES,  
Auburn, New York.

TEACHER RESOURCES:

Baruch, Rhoda Wasserman, "The Achievement Motive in Women; A Study of the Implications for Career Development" Thesis, Harvard Univ., 1966.

Distefano, Michael Kelly Jr., "Influence of Normal Development and Emotional Impairment on Works Related Attitudes" Thesis, Louisiana State Univ. and Agricultural and Mechanical College, 1967.

Ginzberg, Eli and others, Occupational Choice - An Approach to a General Theory, Columbia University Press, 1966.

Holland, John L., The Psychology of Vocational Choice, Waltham, Mass: Blaisdell Publishing Co., 1966

Maslow, Abraham H., Motivation and Personality Harper and Row, 1970

Saltzman, Glenn A.; Career Education Program Vol. II, Grades  
7-9 Houghton Mifflin Co., Boston 1973

"The Changing Work Ethic" Kit, Guidance Associates, subsidiary  
of Harcourt, Brace, Javonovich, Inc. 1973 2 filmstrips w/records  
or cassettes, disc. guide

"Career Values: What Really Matters to You?" Guidance Associates,  
subsidiary of Harcourt, Brace, Javonovich, Inc., 1974 5 filmstrips  
w/records or cassettes

STUDENT RESOURCES:

U. S. Dept. of Labor, Washington, D. C. Gov't Printing Office  
Dictionary of Occupational Titles, Vol. I and II  
Occupational Outlook Handbook

Current Affairs

FS "Choosing a Vocation" 95 frames, color 13 min. Encourages students  
to give more thought to self appraisal and career potential.  
Motivation for work.

Education Progress Corporation, Palo Alto, Calif.

tape Career Development Laboratory 1970 Unrehearsed interviews with people in 60 occupations on cassettes with teacher's manual.

Guidance Associates, Pleasantville, N.Y.

FS "Why Work At all?" # 106 318 Job Attitudes

FS "Preparing for the World of Work" two filmstrips - exploring ways in which you can begin to plan for an enjoyable and meaningful career and emphasizing importance of training and skills for adaptability to career.

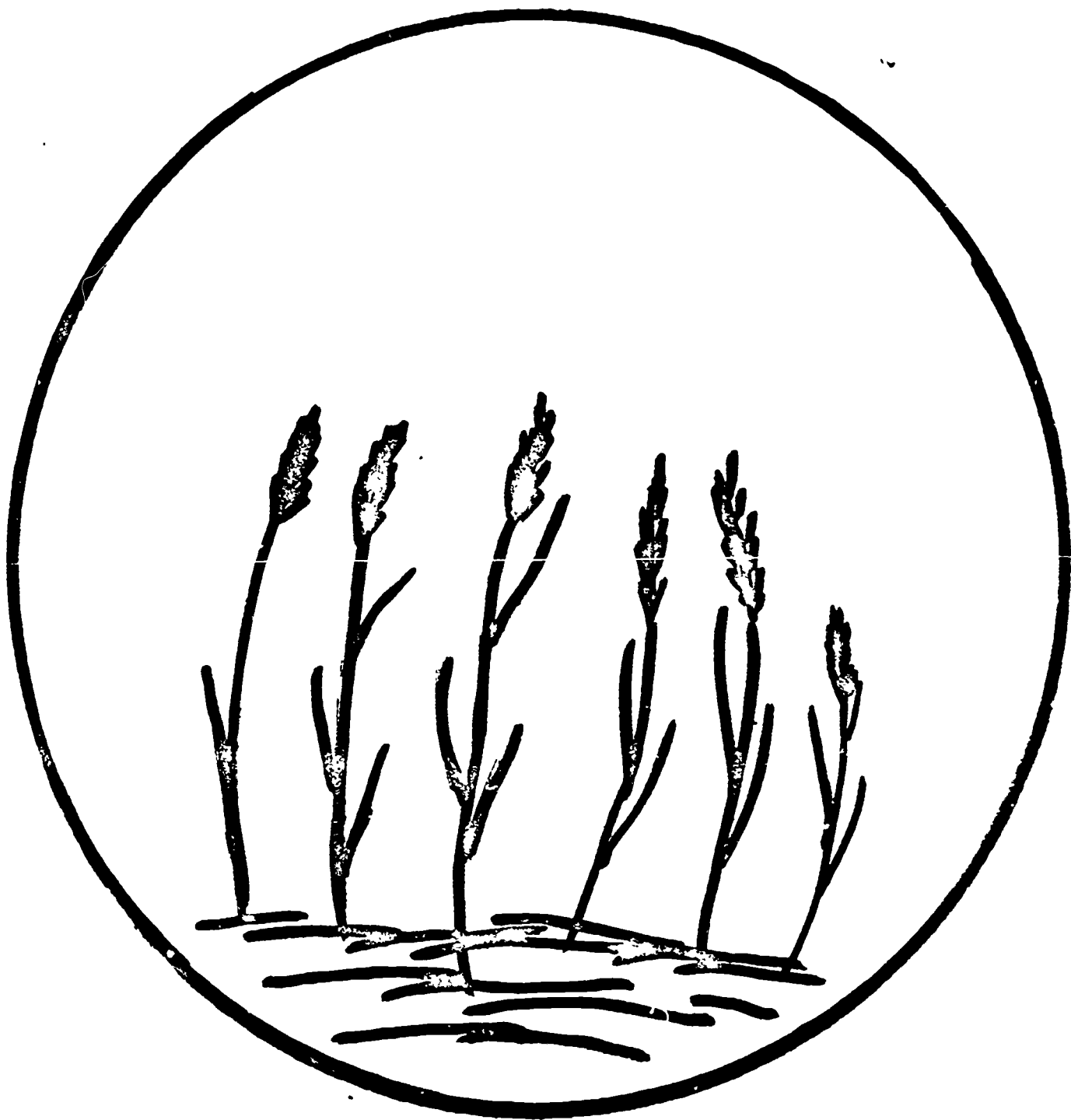
FS Preparing for Jobs in the '70's Two filmstrips, teacher manual and disc guide

Scholastic Press

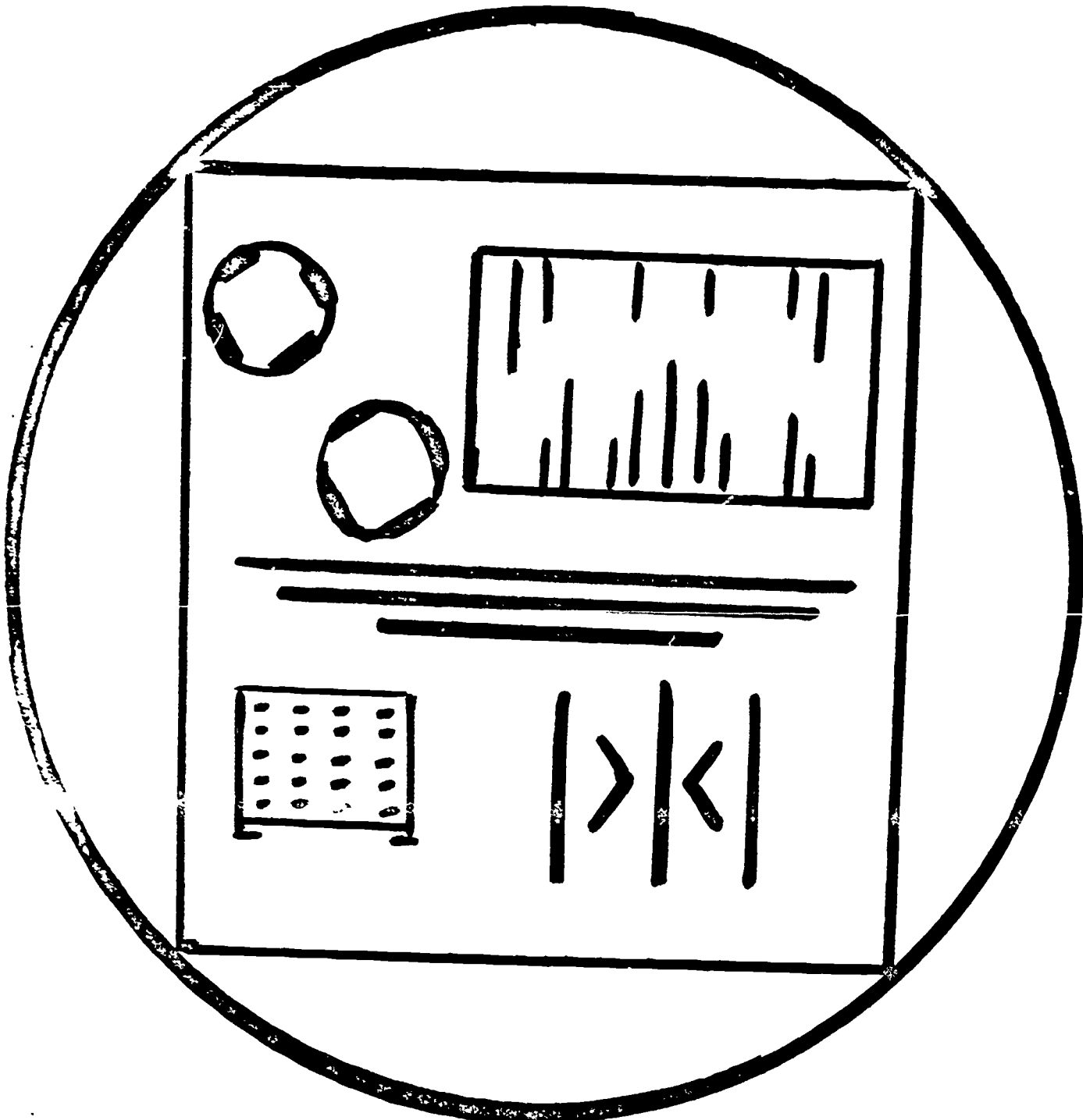
Discovery - A Career Education Program from Scholastic, Career Log, Chapt. 3

SVE

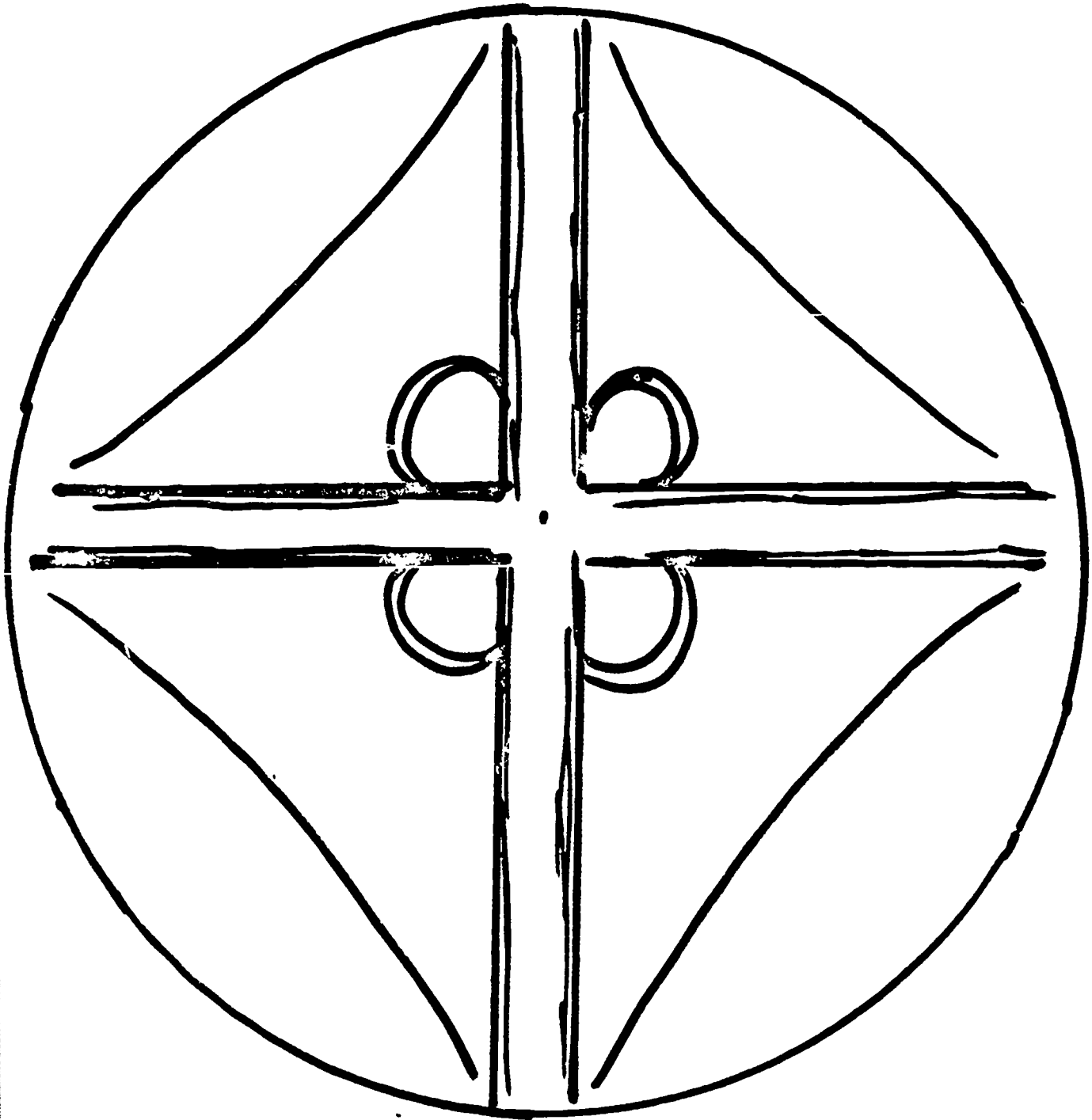
FS Vocational Decisions Series of 3 and Introduction to Vocation, The World of Work, Counseling in Vocational Decision.



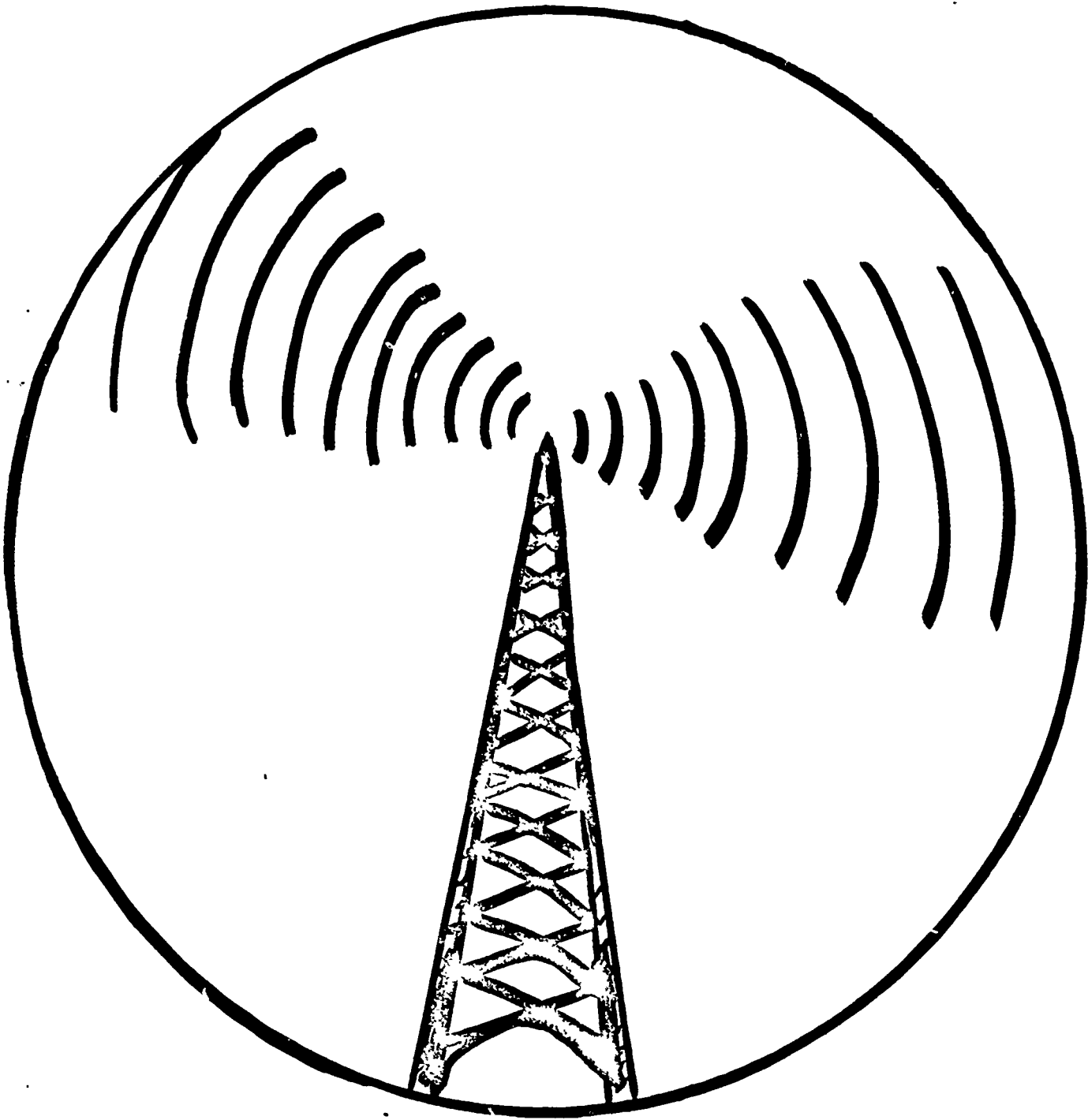
AGRI-BUSINESS AND  
NATURAL RESOURCES



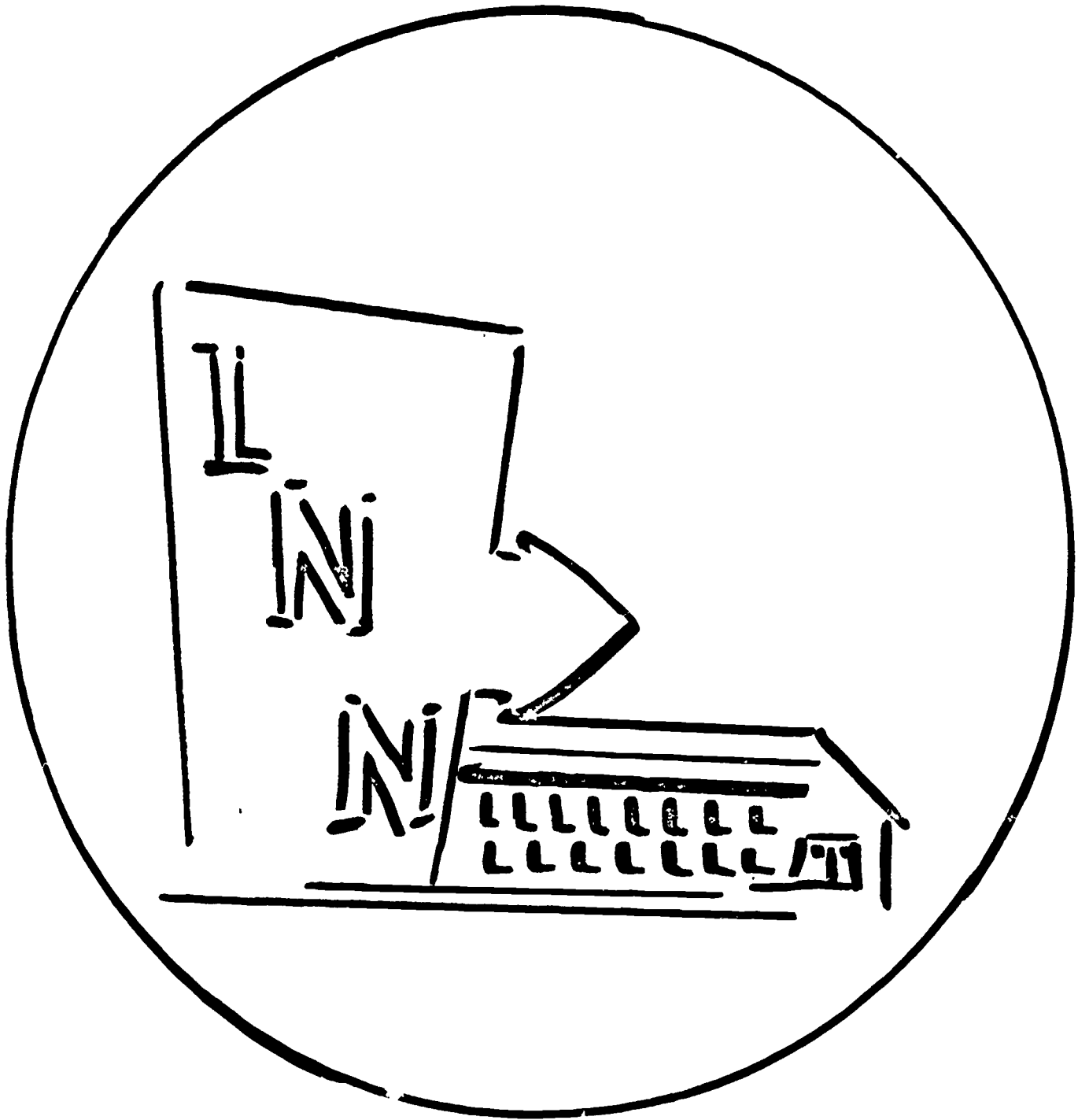
BUSINESS AND OFFICE



TRANSPORTATION

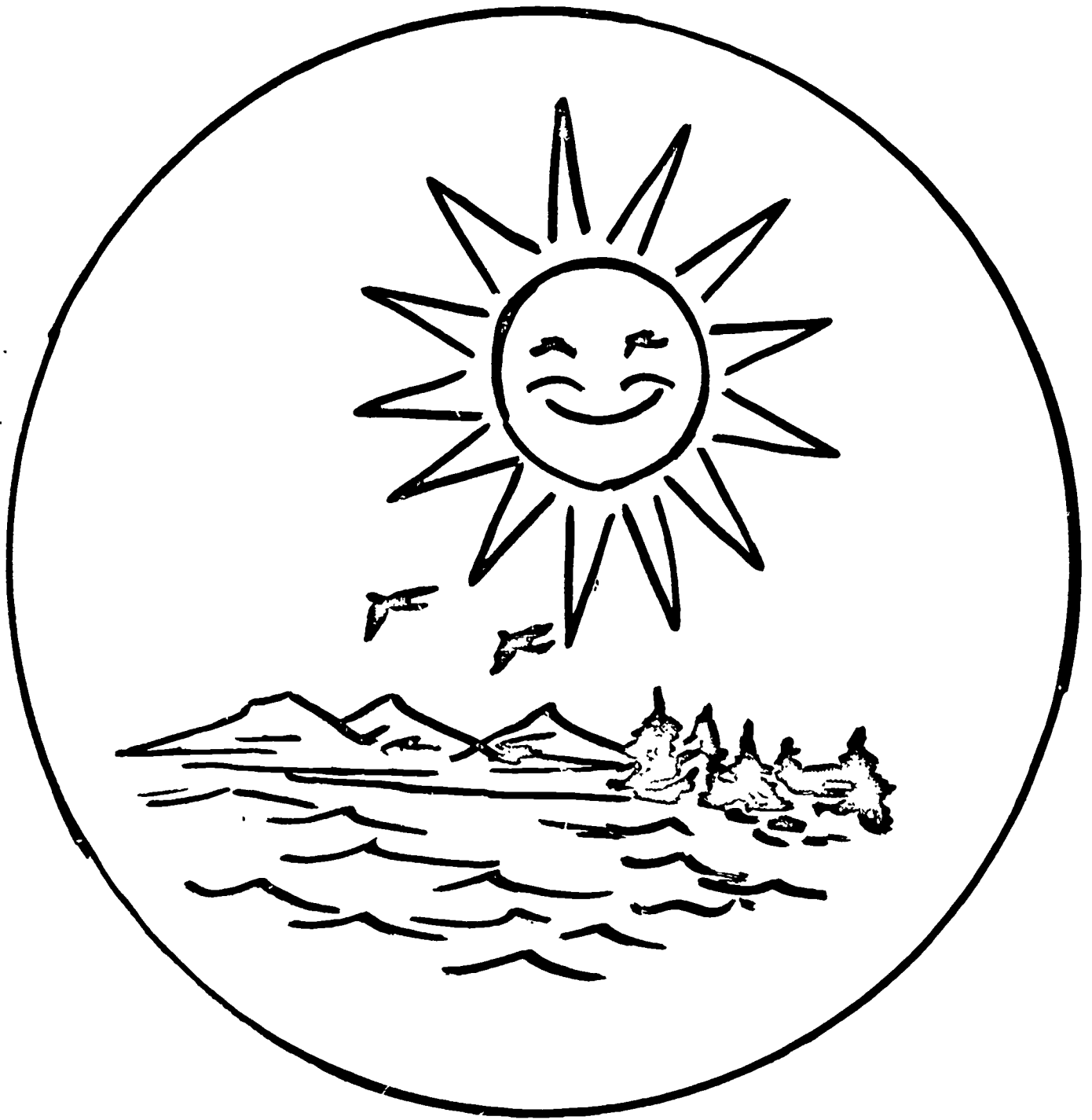


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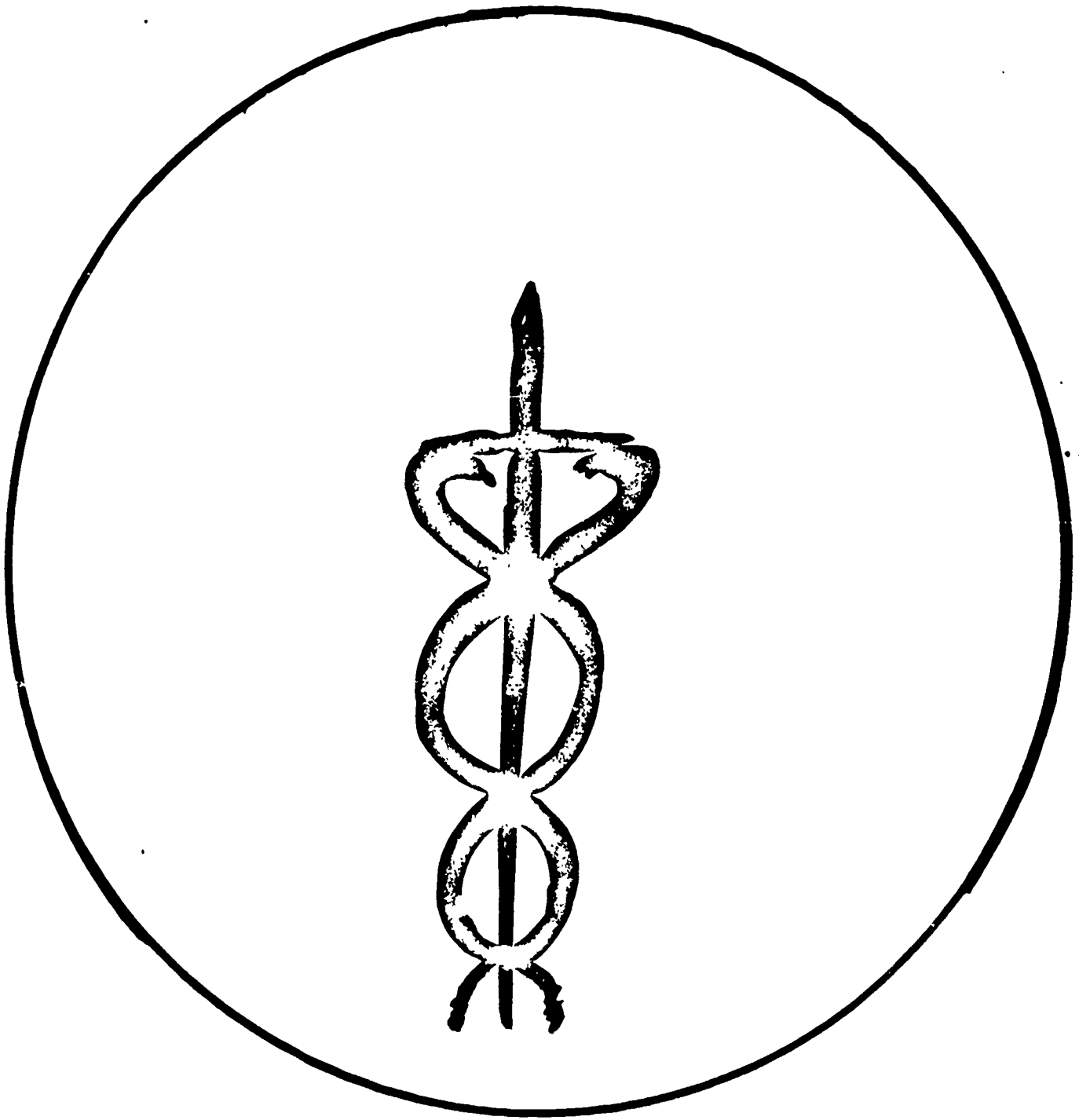


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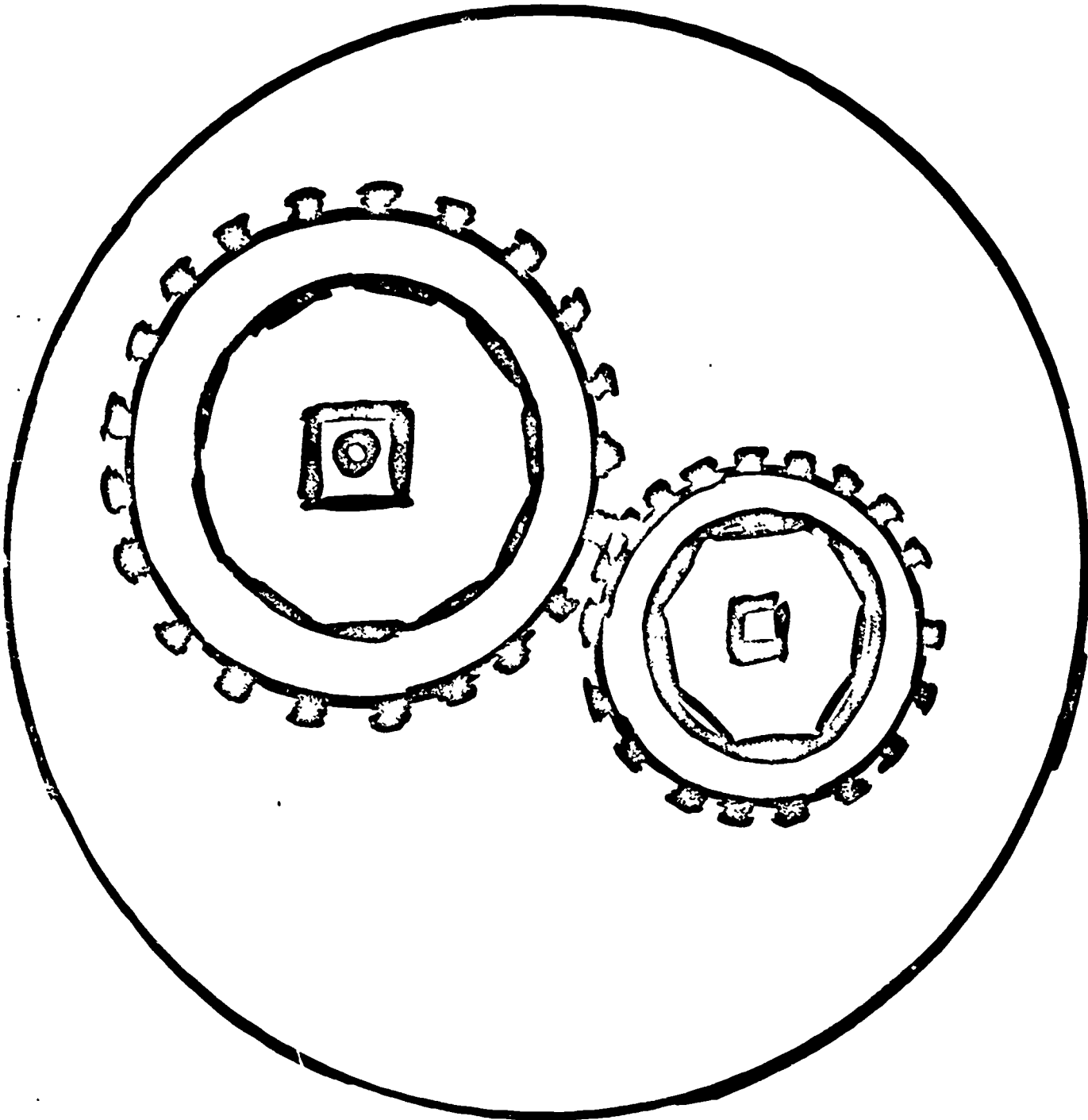


ENVIRONMENT

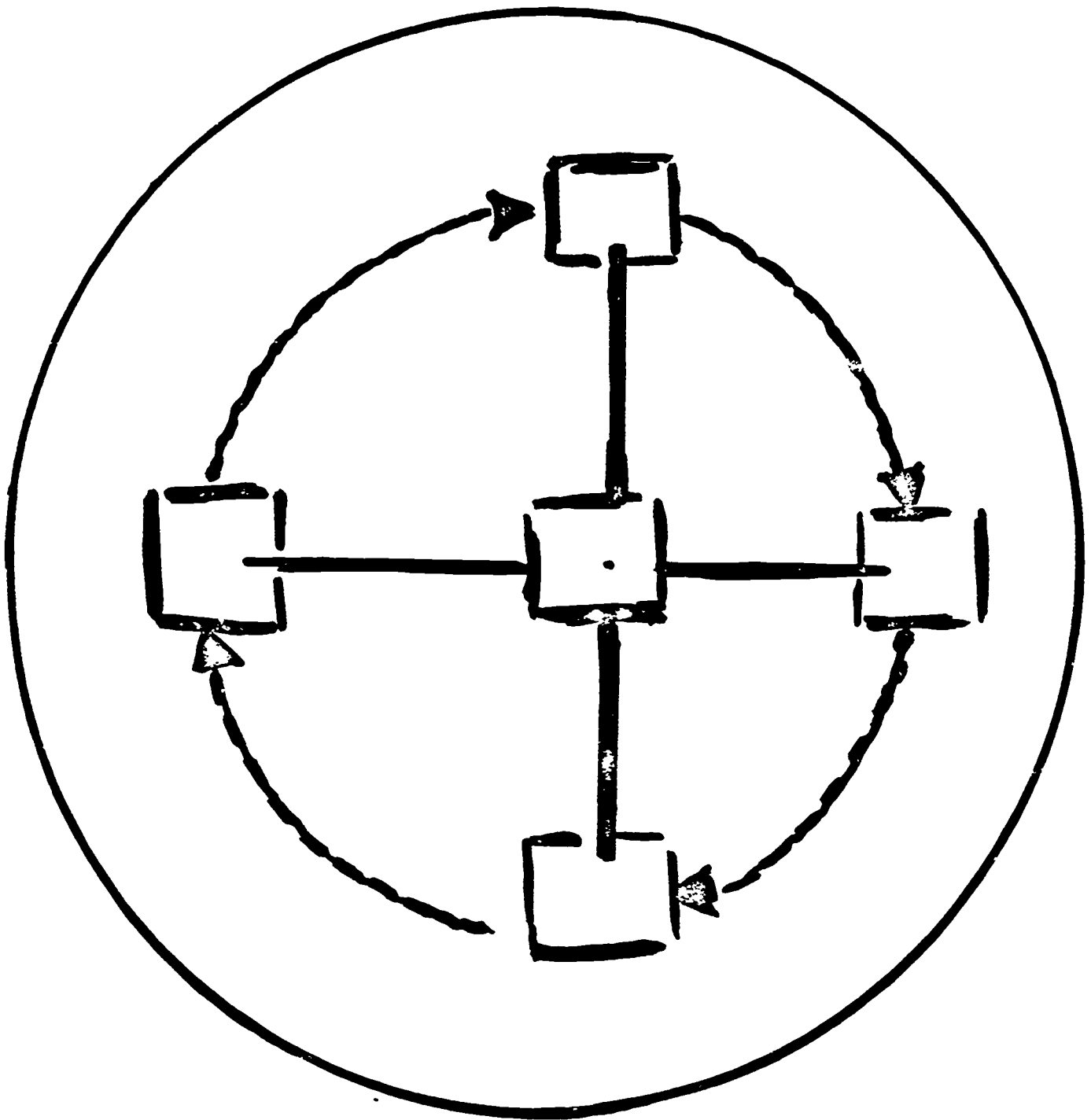


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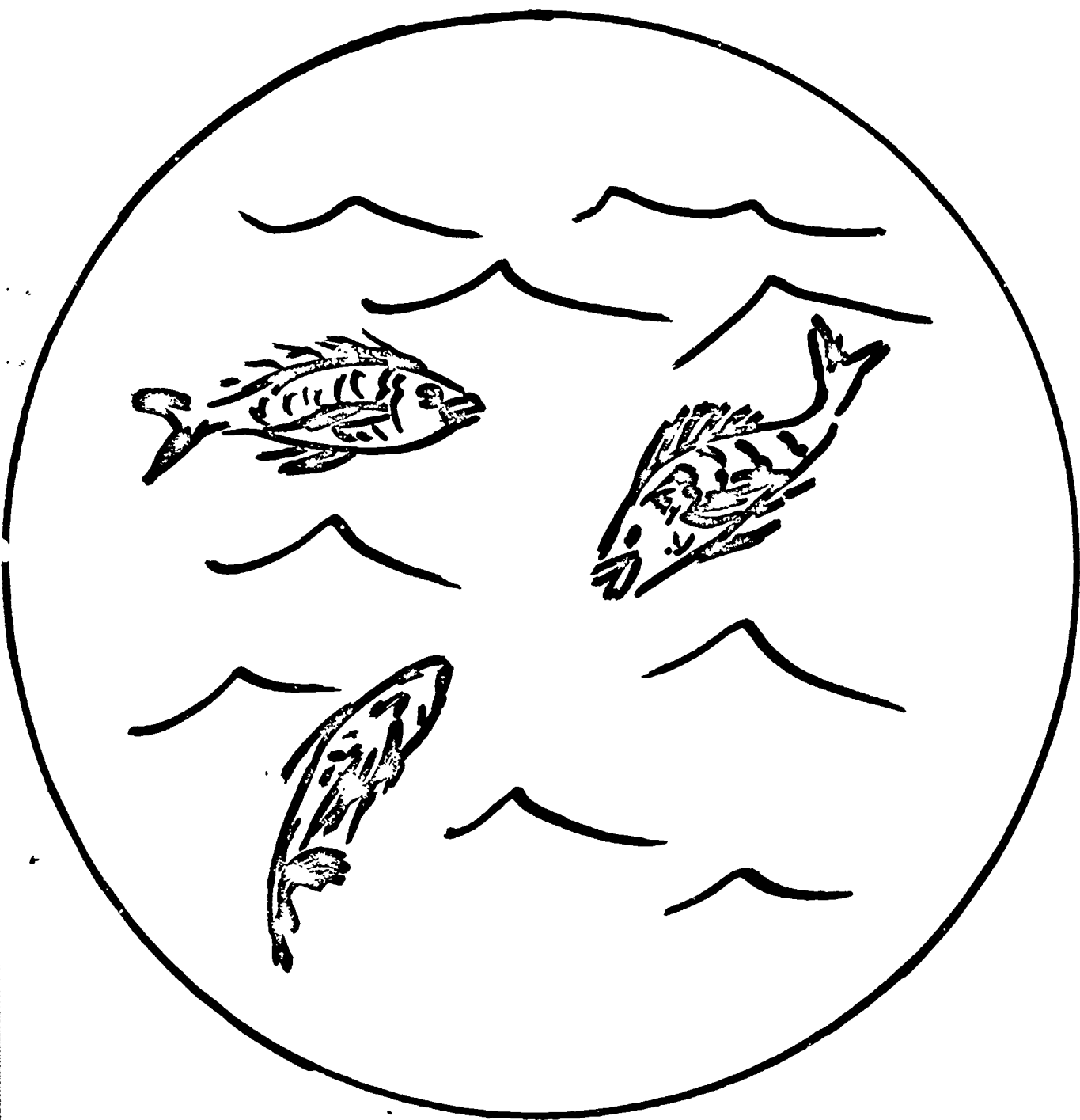
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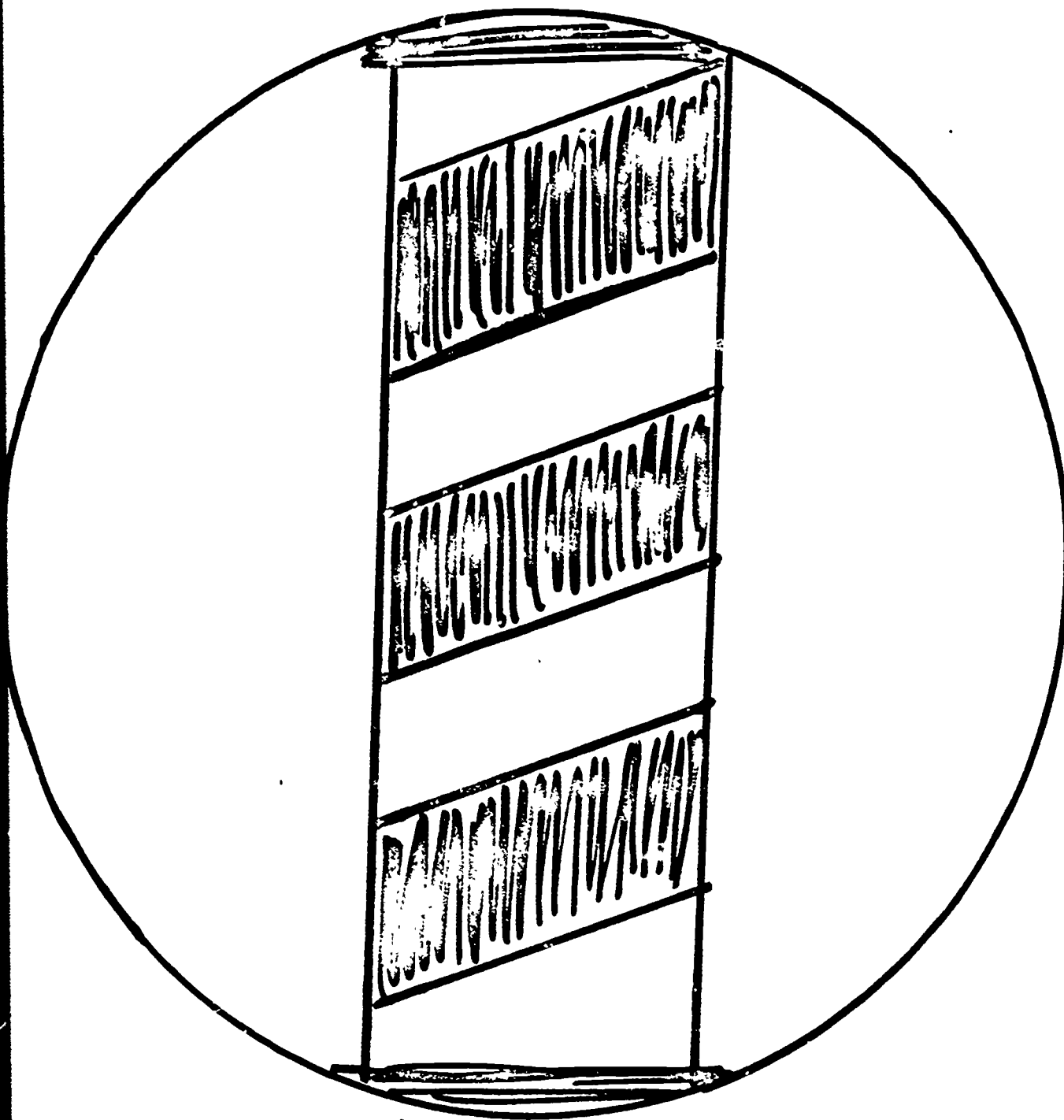
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MARKETING & DISTRIBUTION



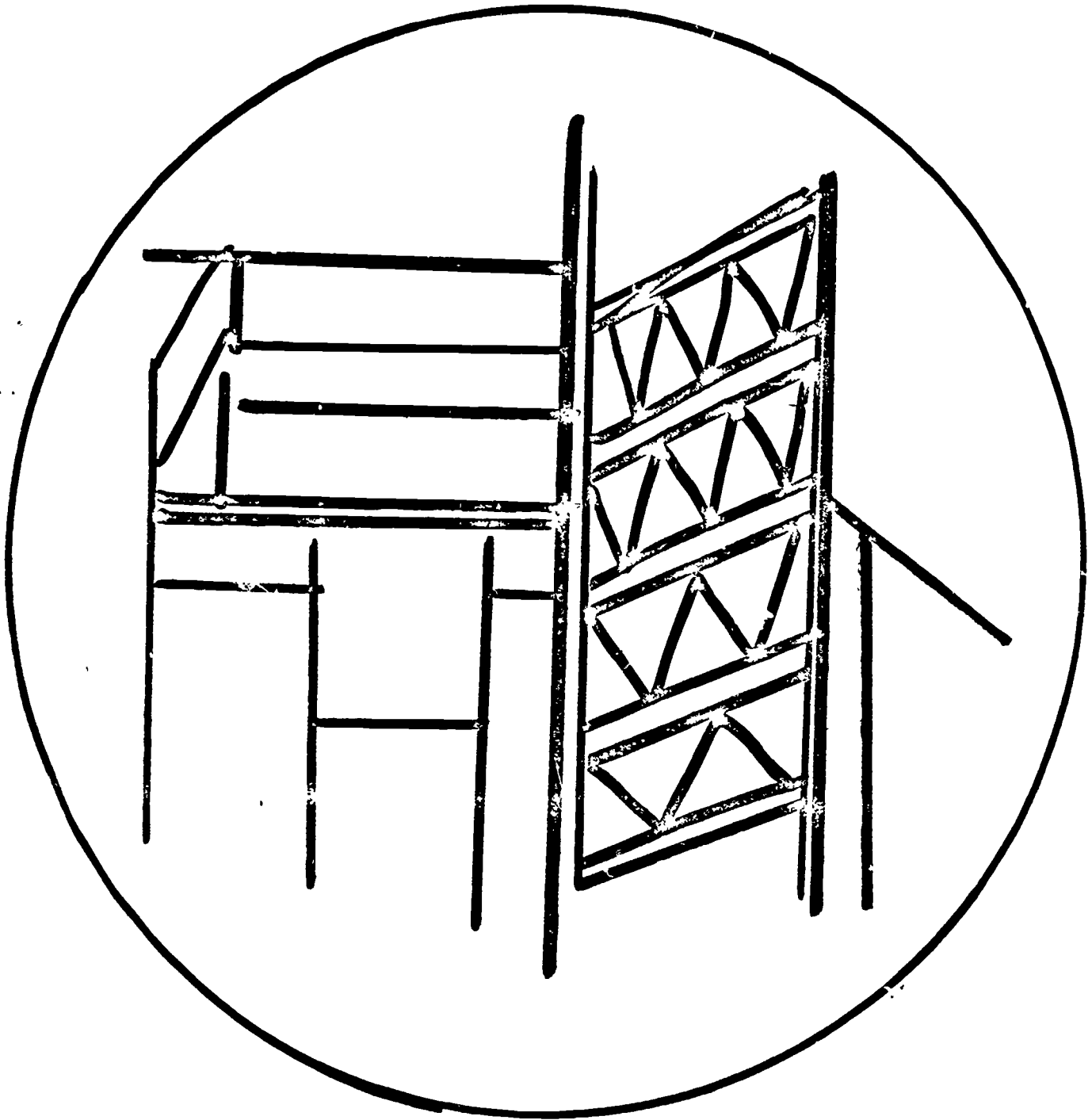
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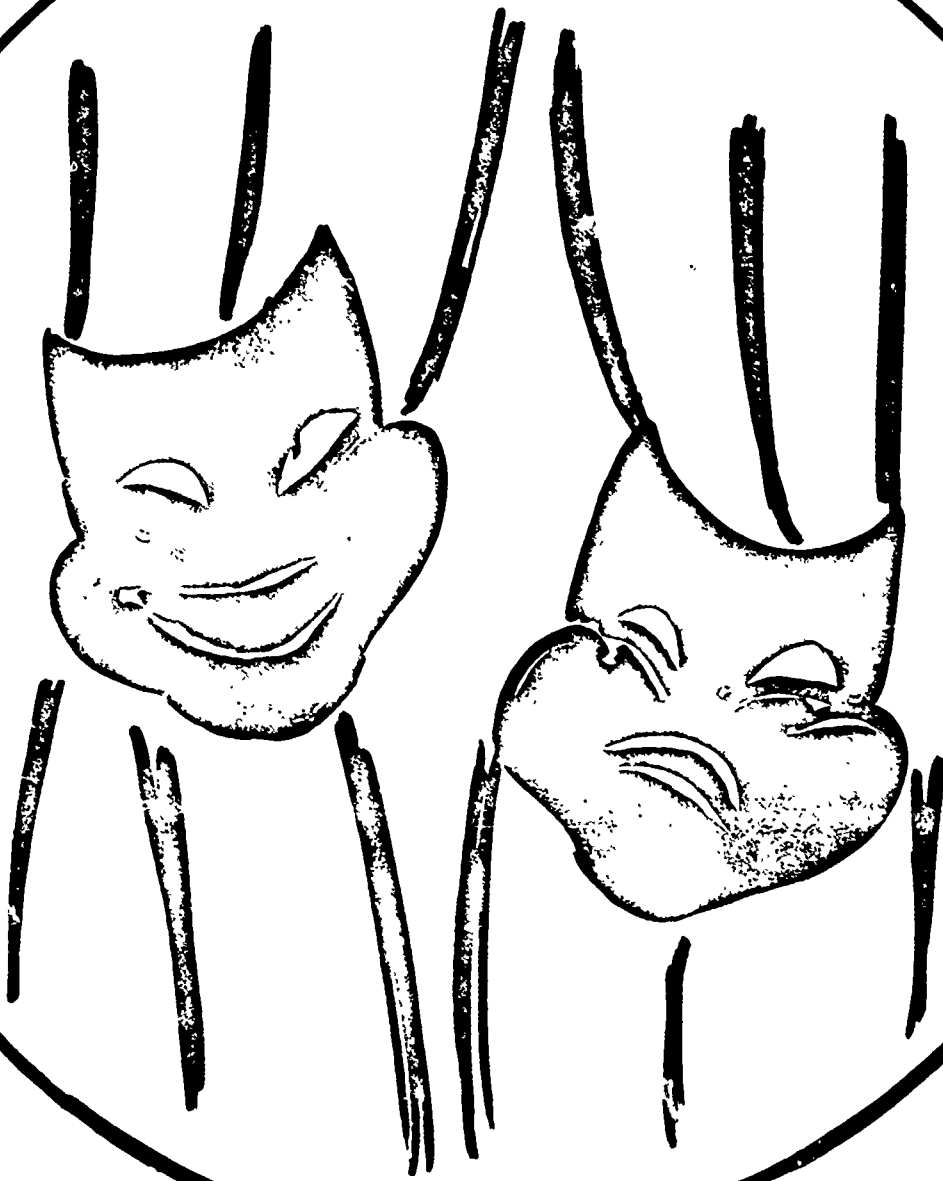
PERSONAL SERVICES

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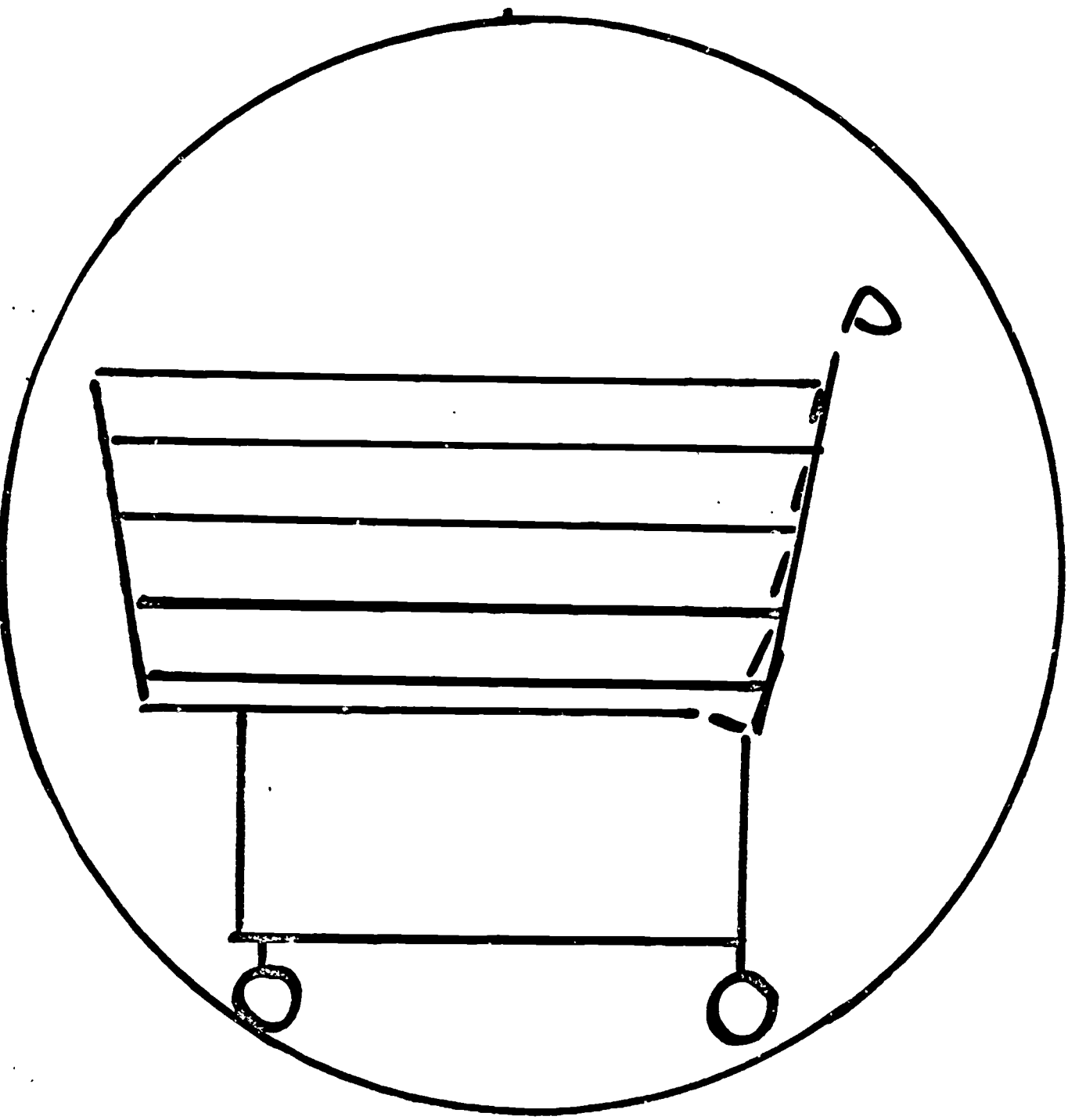


~ CONSTRUCTION



FINE ARTS & HUMANITIES





CONSUMER & HOMEMAKING EDUCATION

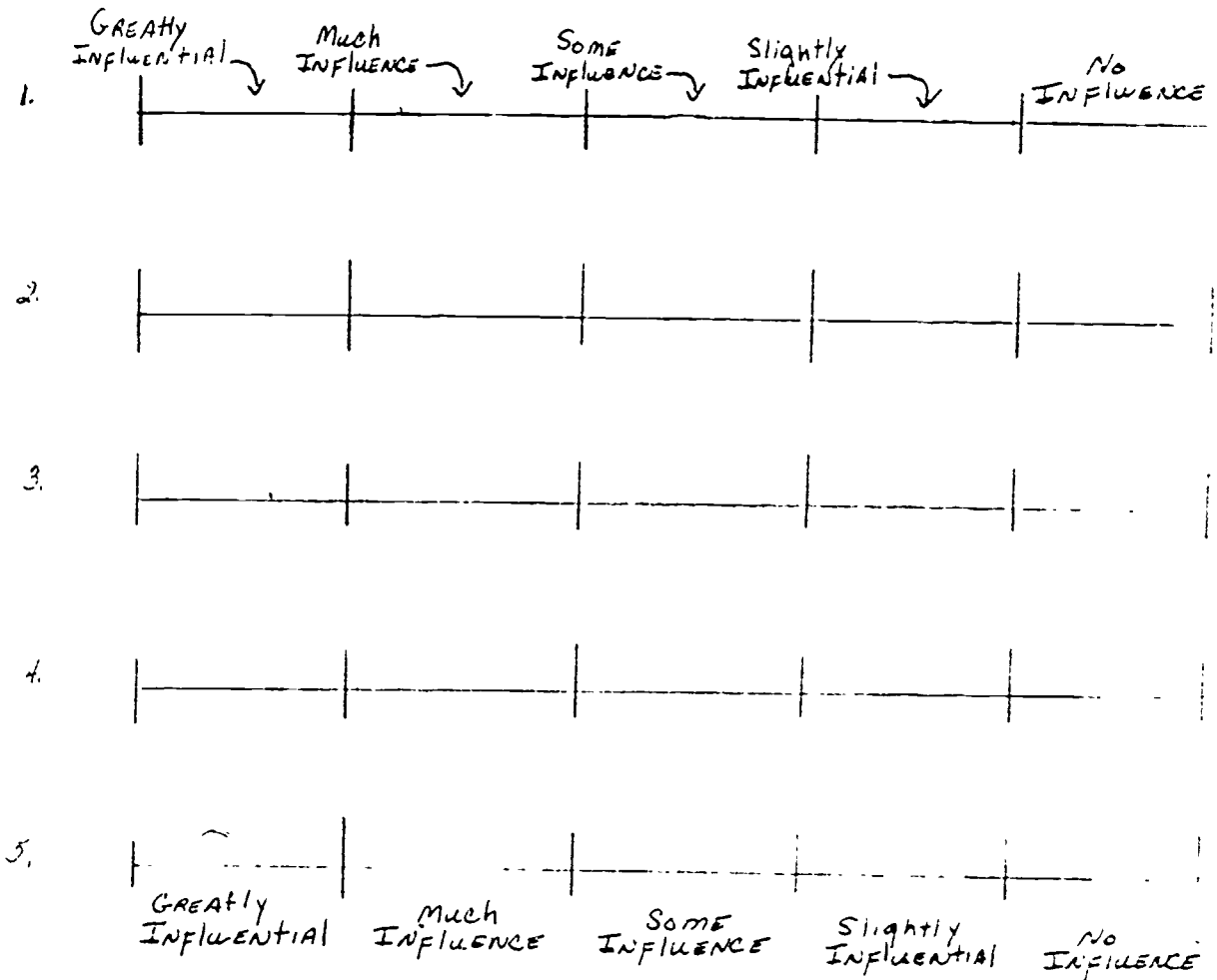
APPENDIX II

CAREER MOTIVES CHART

NAME. . . . . CHOSEN CAREER CLUSTER. . . . .

CHOSEN OCCUPATION. . . . .

IN EXPLORING THE ABOVE CAREER, HOW MUCH IMPORTANCE DO YOU THINK THE NUMBERED MOTIVES PLAY IN CHOOSING THAT CAREER? PLACE AN "X" ON THE CONTINUUM LINE FOR EACH MOTIVE TO INDICATE YOUR RESPONSE.



## CAREER MOTIVES LIST

Rank order the following (teacher may want to limit students to a certain number of items to be ranked)

1. Desire to give service (helping others)
2. Need for financial security (taking care of self and family)
3. Need for social recognition (prestige, status, respect)
4. Personal satisfaction (self-respect, accomplishment)
5. Need for subsistence (food, clothing, shelter)
6. Amount of leisure time (rest and recreation)
7. Family traditions and/or expectations
8. Supply and demand (job market)
9. Impact of geography and/or environment
10. Physical abilities
11. Mental abilities
12. Natural talents
13. Acquired skills (need for training and education)
14. Sex roles
15. Need for independence (self-reliance)
16. Desire to accumulate wealth (money and material goods)

APPENDIX III

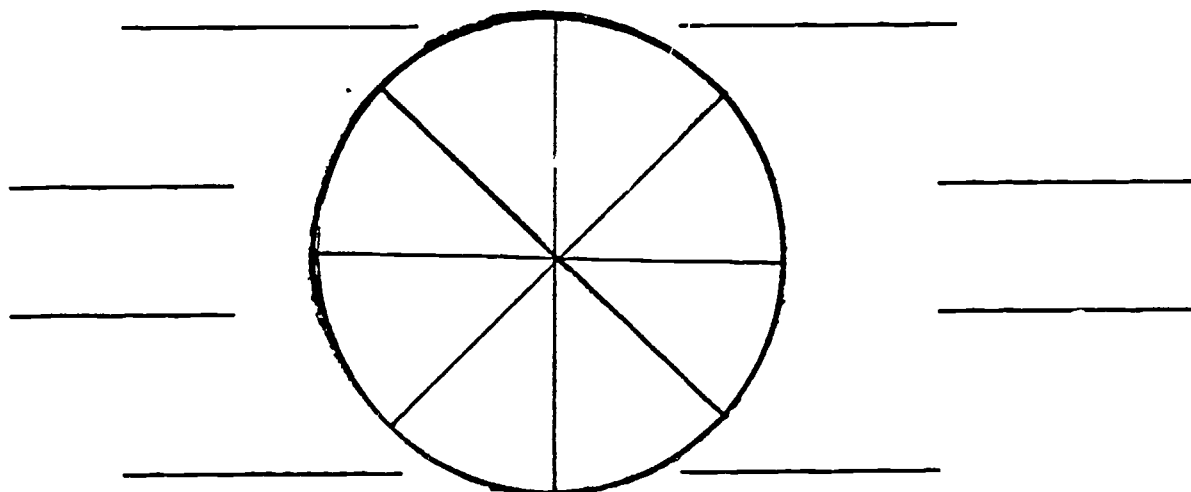
Pie Graph of Career Motives

Name \_\_\_\_\_ Date \_\_\_\_\_

Select 8 of the career motives from the list below that you feel are most important in your choice of a career. Write them in the blank spaces outside the circle below. Then shade in each section of the divided circle showing how much importance you think each motive will play in your own career choice. Leaving a segment blank would mean that you do not think that that motive will be important at all; filling in the entire segment would mean that you think that that motive will be most important.

Career Motives List

- |                          |                               |
|--------------------------|-------------------------------|
| 1. Helping others        | 9. Geography & environment    |
| 2. Financial security    | 10. Physical ability          |
| 3. Prestige & status     | 11. Mental ability            |
| 4. Personal satisfaction | 12. Talents                   |
| 5. Subsistence           | 13. Acquired skills           |
| 6. Leisure time          | 14. Sex                       |
| 7. Family traditions     | 15. Self reliance             |
| 8. Job market            | 16. Need to accumulate wealth |



EVALUATION REACTION FORM

FOR

CAREER EDUCATION MODULES

Tri-Boces

Cayuga, Cortland-Madison, Tompkins-Seneca-Tioga

Instructor's Name: \_\_\_\_\_

School District: \_\_\_\_\_ Building: \_\_\_\_\_

Module Title: \_\_\_\_\_

Unit Title: \_\_\_\_\_

Grade Level: \_\_\_\_\_ Number of Students: \_\_\_\_\_

1. From the three sections listed below relating to the module, please check any section that you felt was a problem and comment on the problem experienced.

Suggested Instructional Activities:

Follow-up Activities:

Resource Materials:

Comments:

2. How did you evaluate the students in the module?
3. If you used an evaluation device with the students, please forward it with this report.

4. If you made any changes in this module or feel changes should be made, please indicate briefly what changes you recommend.
  
5. How many teaching days and/or teaching periods did you use the modules relating to Career Education.
  
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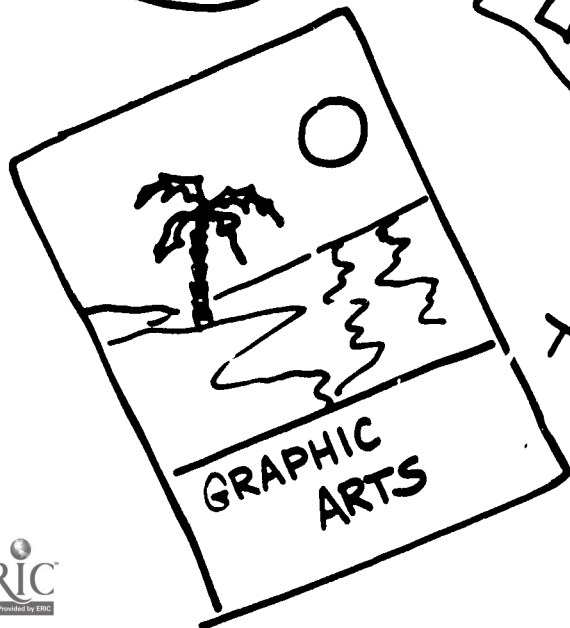
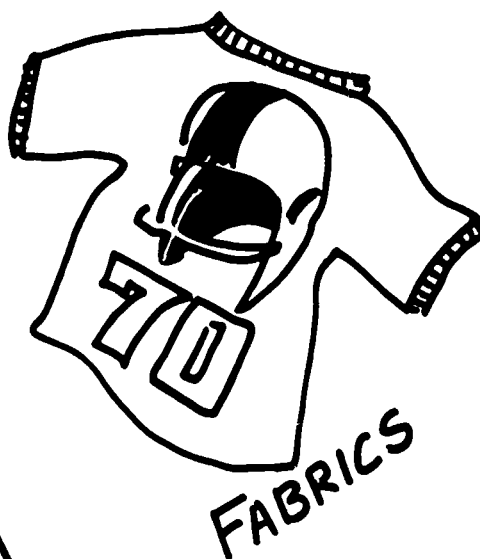
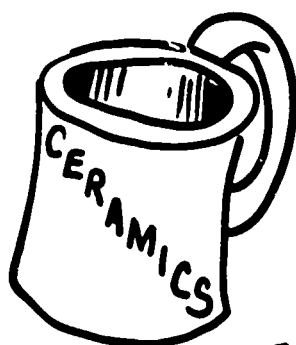
COMMENTS:

Please return to: G. Douglas Van Benschoten  
Cortland-Madison BOCES  
Clinton Avenue Extension  
Cortland, New York 13045

# CAREER EDUCATION

LIFE AND THE CAREER ARTS  
GRADES 8-9

## PRINTING



TIE DYING



003957

# CAREER EDUCATION

**PROJECT:** Tri BOCES Planning and Development of a  
Comprehensive Career Education Program K-12

**REGION:** Cayuga BOCES  
Cortland-Madison BOCES  
Tompkins-Seneca-Tioga BOCES

McEvoy Educational Center  
Cortland-Madison BOCES  
Cortland, New York 13045

1974



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## FOREWORD

In a Career Education program, each student is provided with tools and/or information to help him develop a sense of self-awareness, to become cognizant of his abilities, temperaments, aspirations, goals, values, interests and needs in order to make realistic choices in the many career options available to him in the world of work.

The material developed in this unit was based on this premise with the goal of infusing these ideas into the present curriculum.

Career Education is a facet of education that can be related to the whole student and thus provide a vehicle to help youth prepare for the future and implement decisions that will hopefully lead to a rewarding and successful life.

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Career Education Manager

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Cover by Robert Gerlach - South Seneca Central School

## INTRODUCTION

The following unit is designed to be used by a Life and Career Arts Department at the eighth or ninth grade level. The total unit was originally offered as a concurrent set of mini-courses but each could be isolated to fit into traditional Home Economics and/or Fine Arts and/or Industrial Arts curriculum and expanded in time and depth to meet the needs and interests of students. Students selected to study printmaking principles, skills, materials and careers through the media of their choice. The mini-courses were designed to be ten (10) class periods in length with each period being 50 minutes long.

The broad goals and objectives are common to all the mini-courses. In addition, more specific goals and objectives support each mini-course.

## UNIT I

### Mini-Course

#### ART Printing

(Relief Printing on Paper and Fabric)

By Donald R. Queen

#### Goal:

To expose students to the process of image transfer and printing on a variety of printable surfaces.

To make students aware of transferability of printing skills to many career areas.

#### Objectives:

The students will be able to:

1. Name and list 10 jobs or careers in which printing skills are necessary or applicable.
2. Develop a plate and print an image on a printable surface of their choice.

#### Introduction:

Sign up session with brief course explanation/description by instructor.

- a. Instructor class list meeting
- b. Central class list established for progress, grades, attendance.

#### Materials:

Print making - linoleum, soft wood, paper, printing ink, tools, silk screen, paper, fabric, cutting tools, ink, solvents.

Content:

The visual world is saturated with the printed word and images and surfaces; few people know how this comes about.

Activities:

Stimulation

Tour of BOCES printing section during established class.

Short explanation by instructor and students.

Lectures and Static Display

Student awareness of community printing, advertisement, distribution companies.

Static display, discussion and quiz.

Job cluster awareness - charts, posters

Silk screen demonstration

Lithography demonstration

Relief print demonstration

Culminating Activities:

Designing a lino-cut or wood cut

Preparing a plate

Printing an image on a surface

Behavioral Objectives:

Upon completion of the unit a student will have completed a finish print in one color with the simplest tools and materials on hand, to an eighth grade level of achievement.

"Relief Printing on Paper and Fabric" is an introduction to relief printing, printing in general, the silk screen method, and graphic communications.

A variety of printable plates are introduced but room should be left for student imagination, i.e. "anything prints".

It is important to keep in mind that:

1. This outline is meant to be taught by a person with some background in teaching either printmaking, Art, Industrial Arts, and in many cases, Home Economics.
2. The instructor should interject Career Education at every opportunity.
3. The instructor should use the outline as a very flexible teaching tool.

#### Introduction:

##### A. Chalk board demonstration

1. A relief print is:
  - a. finger print
  - b. texture on a surface
  - c. a raised surface
2. Relief prints were one of the first reproduced graphic images
  - a. display Albert Durer print
  - b. demonstrate by rubbing chalk on a rough surface  
how a cave man might have printed on a skin,  
bark leaf or stone

##### B. Introduction to materials

1. Linoleum
  - a. explain make up, cost, how it is made, availability



- b. cutting blades and handles
    - c. sharpening and blade replacement
  - 2. Introduce bench hook (safety cutting board)
    - a. explain safety factor
    - b. explain cut finger procedures
    - c. demonstrate lino placement on bench hook
- C. Lino-plate preplanning
  - 1. Preplanned drawing
  - 2. Transfer to plate with carbon paper
  - 3. Discussion with instructor on individual basis as to options (cutting)
- D. Lino-plate cutting
  - 1. Demonstrate cutting techniques, bench hook
  - 2. Demonstrate heating plate under hot water
  - 3. Make reference to how plates in today's magazines and newspapers are developed.
- E. Inking and printing
  - 1. Introduce and explain water soluble inks advantages and disadvantages
  - 2. Ink cost and availability
  - 3. Introduce ink rollers, slabs inking area, explain how an offset press is inked
  - 4. Paper
    - a. types available, cost, manufacture
    - b. texture, absorbent qualities
    - c. short discussion of manufacture and delivery
- F. Printing techniques
  - 1. Demonstrate rolling ink on slab

2. Demonstrate transferring ink to plate
3. Print plate
  - a. paper, plate rubbing with spoon or cutting handle
  - b. using press or pressure
  - c. discuss how magazine pages are numbered and printed
4. Using other inks
  - a. tempora
  - b. crayon
  - c. water color
  - d. discuss industrial multi-color process
5. Other techniques
  - a. stamping
  - b. mixed media
    1. plate, stencil
    2. over printing magazines
    3. over printing previously done art work
    4. stamp printing on fabrics

G. Silk screen demonstration

1. Using a previously prepared portable silk screen, using lacquer film, paper stencil, photo stencil
  - a. history of silk screen
  - b. application, fabric, signs
  - c. the screen as a powerful printing press
    1. reproduction
    2. mobility
    3. inexpensive to manufacture
  - d. print on:
    1. an undershirt, discuss drying, pressing
    2. curtain, discuss registration

3. wall paper, discuss registration

H. Field trip

1. To print shop or commercial printing business
  - a. introduce job cluster related to printing industry
  - b. introduce labor organization in relationship to workers
  - c. pre and post discussion of trip
    1. discussion -
      - a. what we saw, heard and smelled
      - b. noise level
      - c. lighting
      - d. workers seated, standing or moving
    2. have class form an imaginary newspaper
      - a. describe and list 10 - 15 associated jobs
    3. have class take end of course "exam":
      - a. Name 10 jobs associated with printing.
      - b. Name 5 or more printed material or surfaces they see daily.
      - c. How could a bill board be printed?
      - d. Do you think printing is necessary? Why?

UNIT II  
Mini-Course  
ART  
Printing  
(Ceramics)

By Donald Queen

Introduction:

- A. Chalk board demonstration/discussion
  - 1. Imprinting in clay is to change the surface of clay by
    - a. stamping with different shape objects - tools, screws, bolts, etc. objects may be made from metal, wood, plastic, plaster, fabric.
  - 2. Where are clay objects of this kind used?
    - a. by professional and amateur potters
    - b. by industry, for home use, institutions, business
  - 3. Why should we add these designs to clay?
    - a. to give a more pleasing appearance to the clay
    - b. to write a message/words for others to see
    - c. to change color such as graffito carved into clay slip surface
    - d. to change the texture
- B. Demonstration/preparation of clay
  - 1. Preparation of clay by wedging for:
    - a. slab construction
    - b. pinch pot construction
    - c. coil construction
    - d. wheel thrown

- C. Demonstration/showing of completed objects showing imprinting such as:
1. Slab construction: trivet, wind chimes, mugs, vases, wall dividers, jewelry
  2. Pinch pot construction: vases, mugs, bowls, bells, jewelry
  3. Coil construction: containers, vases, bowls
  4. Wheel thrown: pots, cluster of pots
- D. Student selects projects of own choice to make
- E. Class discussion of jobs related to field of ceramics
1. Amateur/professional potters.
  2. Maintenance for repairing of things using ceramics (electric poles)
  3. Production or factory jobs for preparation of clay objects
  4. Jobs related to preparation of glazes
  5. Jobs related to attaining supplies/raw materials used in preparation of clay
  6. Salesmen for distribution of clay objects in business and industry
  7. Salesmen in stores
  8. Art teachers/professors in schools/colleges
  9. Automobile repairmen/related jobs for things such as spark plugs
  10. Highly specialized fields such as ceramic engineers
  11. Specialized fields for preparation of kilns, wheels, tools
  12. Research in field of ceramics
  13. Management in field of ceramics

**F. Tours/visiting artists**

1. Tour local craft/ceramic shops or have a guest demonstrator.
2. Use display of hand crafted items with verbal or written information regarding exhibit.
3. Discussion of jobs related to use of ceramics whether amateur or professional.

**G.- Daily lesson plans**

1. Continuous daily demonstrations and review of techniques, materials, design consideration and uses of prepared items.
2. Evaluation of objects as to interesting or desirable qualities versus less interesting areas.
3. Individual and group discussion regarding why.

**H. Evaluation of project**

1. Is project valuable/timely?
2. Are techniques suitable; could additional techniques, materials or tools be used effectively?
3. Are results satisfactory to the student?

### UNIT III

#### Mini-Course

#### Home Economics Printing

#### (Imprinted Foods)

By Dilmeran Zaralioglu

This experimental mini Home Economics unit is designed to be used in conjunction with the Arts and Industrial Arts departments during the Spring, 1974. The broad goals of the department was to integrate, therefore giving the students a chance to see the relationship of the basic principles of those subjects and how they can be used interchangeably. In this case, the departments dealt with the process of image transfer and printing on a variety of printable surfaces. Main emphasis was given to introducing the students to the possible job opportunities in the area of printing. Section of Imprinted Foods is related to foods prepared by using some of the techniques of printing. This particular unit can be used independently and the duration can be lengthened or shortened according to the skills of the instructor and the needs of the students.

This is a ten (10) day unit

DAY 1

Objectives:

To identify and list a minimum of 5 - 10 career possibilities related to the field of printing.

To recognize the foods area as one of the possibilities in which the skills of printing can be applied.

Essential Learning Concepts:

Concepts: Printing

Printable Surfaces

Concept: Career

Sub Concepts:

- magazines
- newspapers
- textiles
- mosaics
- computer field
- typing machines
- fine art
- home furnishings

Careers related to foods:

- food decoration
- decorative eggs
- test kitchens
- catering for parties
- cook book illustrator



Experiences:

- Brief introduction by the teacher on printing
- Seeing pictures or slides
- Brain storming pretest:
  - a. Careers related to printing
  - b. Careers related to foods
- Discussion of the results of the pretest

Teaching Materials:

A short film strip on history of printing or a lecture showing pictures from the history of art books or slides in related areas.

Magazines, art books, pictures - on printing and publications (Pillsbury, Baker's chocolate, etc.) on cake and cookie decoration.

Cake and Food Decorating Year Book by Wilson

Wilson Enterprises, Inc., Chicago, Ill. 60643

## DAY 2

### Objectives:

To review the five basic principles of design.

To design at least one simple master pattern by applying the principles of design to be used as a cookie cutter.

### Concepts:

#### Concepts:

- Principles of design

#### Sub Concepts:

- line
- form
- shape
- color
- texture
- concept
- master pattern

### Experiences:

Review on principles of design.

Brain storming for possible application to foods.

Drawing the master pattern.

Transferring the design onto cardboards to be used as a cookie cutter.

Alternate experience: Some students may want to make sheet metal cookie cutters. They'll be given the permission to go to the Industrial Arts department for this purpose the following day.

Teaching Materials:

Bulletin boards

Pictures

Magazines

Commercial cookie cutters for stimulation

Cardboards

Felt tip magic markers

Rulers

Scrap paper

### DAY 3

#### Objectives:

To produce one individually designed cookie cutter by using one of the following mediums;

- cardboard
- plastic sheet
- sheet metal
- plywood

#### Essential Learning Concepts:

Preparation of the master pattern(s)

#### Experiences:

Transferring the design onto a surface suitable to be used as a cookie cutter.

Use of the Industrial Arts department by some students who wish to utilize wood and/or sheet metal.

If time permits experiment with play dough.

#### Teaching Materials:

Play dough - (cornstarch & baking soda)

Metal

Wood

Cardboard

Plastic sheet

Scissors - access to the Industrial Arts department

## DAY 4

### Objectives:

Students will make cookies by using their own cookie cutters and decorate them.

Students will identify the use of various food stuff as the means for decoration, therefore relate this project to "imprinting".

### Essential Learning Concepts:

#### Concepts:

Imprinted foods

#### Sub concepts:

- Cookie and cake decoration
- Salad plates prepared by the use of interesting designs
- Using different vegetables, fruits, etc.
- Food coloring
- Use of different nuts, raisins, etc.

### Experiences:

Making cookies

Decorating them

Tasting and exchanging cookies baked

### Teaching Materials:

Basic cookie cutter dough recipe

Cookie cutters

Food coloring

Whip cream

Stoves

Pictures on the bulletin board for further stimulation

Nuts

Candy (hard one for window cookies)

Raisins

Chocolate chips

Fruits, etc.

## DAY 5

### Objectives:

To observe a person who is actually making a living in an area related to the "imprinted foods".

To note some simple techniques in cake decorating.

### Essential Learning Concepts:

Use of cake decorators

Use of food coloring and other food stuff in cake decoration

### Experiences:

Watching the demonstration

Answering questions for stimulating further ideas

### Teaching Materials:

Guest demonstrator (someone who is making an actual living by the use of cake decoration). Guest can be someone from a hotel school cake decorating class or from the local bakery.

## DAY 6

### Objectives:

To apply the techniques learned during the previous day to decorate a cake.

To practice the use of commercial cake decorating equipment.

### Essential Learning Concepts:

Cake decorators

Use of food colorings

Use of other food materials in cake decoration

### Experiences:

Decorating a cake

Making a display and exchanging ideas on the success and/or possible improvements for the future.

### Teaching Materials:

Individual baked cakes

Cake decorating equipment with different nozzles

Food coloring

Whip cream

Candies

Dried or fresh fruit



## DAY 7

### Objectives:

To recognize the art of egg decoration as one of the applications of printing.

To recognize the egg coloring art as a possibility to make income, especially during the holiday season.

To recognize some of the symbols used in traditional egg decoration.

### Essential Learning Concepts:

Ukranian and Russian egg coloring history

Dyeing eggs

Preparing dye

Use of stencils

### Experiences:

Watching the demonstration

### Teaching Materials:

Guest demonstrator - preferably someone who is giving lessons in the area or has a shop or boutique where she/he is selling decorated eggs. Guest will demonstrate the process.

Book: Ukranian Easter Eggs by Ukranian League of North America  
Cop: 1952, 55

Other cards, brochures obtained from: SURMA, 11 East 7th St.  
New York, N. Y. 10003

DAYS 8 & 9

Objectives:

Practice egg coloring and decoration

To make at least 1 finished decorated egg with the use of the Ukranian technique.

Essential Learning Concepts:

Different dyes

5 stylus

Bee's wax

Experiences:

Preparing the dye

Learning to use the stylus

Teaching Materials:

All the materials needed for this section have to be ordered 4 weeks in advance from the following address:

SURMA, 11 East 7th Street, New York, N. Y. 10003

Every student will need at least 1 stylus to work

Eggs

Bee's Wax

Candles

Cards - pictures on basic traditional designs

National Geographic - April, 1972 issue on Ukranian egg coloring

## Day 10

### Objectives:

To name 10 job possibilities where the principles of printing can be applied, 5 of them being in the foods area.

Alternative to meetings 7 - 9 can be to allow students to spend more time with their original designs. For example, they may want or require to do more patterns for cookie cutters and spend more time in the Industrial Arts department. Or, they may go into more intricate cake decoration and spend more days. Student's needs and teacher's resources will determine this adjustment.

### Experiences:

Review of the unit by brain storming and display of products. Brain storming will be (again) related to job possibilities related to this unit.

### Teaching Materials:

Teacher student projects

Alternate to 10th day would be plan a party where students made and sold products they made.

## UNIT IV

### Mini-Course

#### Home Economics (Tie-Dyeing)

(This is a seven (7) day unit)

By Sandy Hopkins

### DAY 1

#### Specific Objectives:

Students will be able to:

Identify, on sight, a design done by tie and dye method of fabric printing.

Identify 5 - 8 jobs or careers to which skill or knowledge of tie-dye techniques would be transferrable.

#### Learning Experiences:

Introduction: What is Tie and Dye?

1. Discuss history and cross cultural character of tie-dye techniques. Possible teaching techniques:

- teacher lecture
- bulletin board illustration
- slides, if available

2. Uses for tie-dye fabrics

Students brainstorm a list of possible uses for tie-dyed fabrics.

Teacher follow-up with samples of uses in clothing, home furnishings, as art form:

linens	dresses	upholstery
tee shirts	scarves	pillows
hats	body suits	wall hangings

3. Careers related to tie-dye

From list of uses, students brainstorm jobs or careers related to those uses. Teacher can supplement student lists, if incomplete,

Make list part of bulletin board.

Brief description of each job by teacher. - jobs could include:

artist	interior decorator	display person
chemist	colorist	fashion designer
dye technician	educational advisor for dye manufacturer	

4. Basic principles of tie-dye techniques

- explanation by teacher with use of samples
- description of technique on bulletin board, step-by-step with samples
- ditto or pamphlet from dye manufacturer or developed by teacher

Supplemental or Alternative Learning Experience:

1. Guest speaker to give introduction: representative from dye manufacturer if one is in the area.
2. Students search resources and develop collage or bulletin board of pictures for uses of tie-dye fabrics.
3. Fashion show of original native costumes
  - African
  - Indian

These are often available from international students at university or community members of these ethnic backgrounds.

Assign each student a related job or career to investigate and report on to class.

Field trip - textile manufacturing plant or mill.

Interior decoration studies,

Dye manufacturer

#### Materials and Equipment:

Projector and screen if using slides

Magazines to be cut up

Pictures, sample articles, slides

Premade samples to be used in demonstration

#### Sources/Bibliography:

General information on tie-dying

##### Books

Maile, Anne, Tie and Dye Mills & Boone, London, England, 1969

Nea, Sarah, Tie-Dye Reinhold & Co., New York, N. Y., 1971

VanZandt, Crafts for Fun and Profit Doubleday & Co., Inc.

Garden City, New York 1974, p.68-74

Handcrafts Random House, New York, N. Y. 1973, p. 116 - 121

Young, Jean, Woodstock Craftsman's Manual Praeger Publishers

New York, N. Y. p. 203 - 222

Proud, Nora, Textile Printing and Dying Reinhold Publishing Co.

New York, N. Y. 1965

##### Pamphlets

"Tie-Dye - The Great Color Explosion with Rit"

Available from: Miss Rit, Best Foods Div., CPC International,

1137 W. Morris St., Indianapolis, Ind. 46206

Also from Rit: "Rit Dye Craft", Educational Aids, Box 307

Dept. BH-S, Coventry, Conn. 06238

Sample questions:

Which fabric has most moisture absorbancy?

Which has the least?

Quick verbal review of principles of tie-dye printing.

Demonstration by teacher of 6 tie techniques

Knotting

Blocking

Texturing

Folding

Sewing

Binding

Students discuss characteristics of the designs resulting from each tie technique. Often students assign names to the designs i.e. sunburst, ripples.

Students try tying by 1 or 2 techniques in a single sample - prepare fabric to dye.

Teacher discusses -

1. The dyeing procedure step by step
2. Clean up procedure
3. Safety precautions

-lecture -photographs -ditto -slides -demonstration

Student dye samples in pre-prepared pot of dye. Allow to dry overnight.

#### Supplemental or Alternative Learning Experience:

Could introduce natural dyes and make own dyes from plants, flowers and vegetables.

References: Vegetable Dyeing, The Botanical Gardens, Brooklyn, N.Y.  
Young, Bryan & Shirley, Navajo Dyes, U.S. Dept. of Interior,  
Bureau of Indian Affairs, Washington, D.C., 1940

#### Materials and Equipment:

Precut samples of fabric - numbered and coded

1. 100% cotton, white, no finish
2. 100% cotton, white, with finish
3. Cotton/polyester blends - white
4. 100% nylon, white
5. 100% wool

Other combinations, variety of above in different weaves

Dye - Putnam or Rit

Prepare pot of dye - enamel pot or #10 can

Plastic or hanging rack for drying samples.

Newspaper to cover counter around dye.

Section of bulletin board labeled for dyeability experiment.

Labels and magic markers.

6 sets of samples, each set represents 1 technique and contains:

1 tied sample

1 dyed sample of that tie technique

Clip clothes pins

Twine

Needle and thread

C Clamps

Wool scraps or pre-cut blocks

Stove or portable burner

Access to cold water

Tongs or slatted spoons

Dyes - liquid- powder

Putnam or Rit

#### Bibliography:

Stuart, Evelyn, Introduction to Textiles, John Wiley & Co.

New York, New York



A.H.E.A. Textile Handbook

Magazines

Better Homes and Gardens, May, 1973, p. 65

Mademoiselle, February, 1971

What's New in Home Economics, November/December 1972 p.12-13

Day 3

Specific Objective:

Combine primary colors to obtain certain specified secondary and tertiary colors.

Learning Experiences:

Introduction to principles of color.

Show samples of multi-color tie-dye pieces.

Pre-test on color principles.

Demo-lecture on primary colors, compliment colors, combination colors.

Using water colors and 100% cotton swatches, students experiment with color combinations:

1. Free experimentation, combine and label combinations.
2. Assign specific colors to obtain students experiment to reach those and label how obtained.

Supplemental or Alternative Learning Experiences:

Same experiment but with watercolor paper or some type art paper.

Students develop own color wheel.

Lecture by art teacher or local artist.

Films on color principles.

Materials and Equipment:

Samples, water, newspaper, smocks, fabric swatches, 100% cotton

Pre-test on basic principles of color

Blackboard and pastels

Color Wheel

Water colors

Brushes

Bibliography:

Brooks, Walter, ed. The Art of Color Mixing, Grumbacher  
Library Book, Artists & Writers Press, Inc. 1966

Itten, Hohannes, The Art of Color, Van Nostrand Reinhold Co.  
New York, New York 1974

Day 4

Learning Experiences:

Lecture/demonstration by local artist or craftsman  
(someone making money with the skill) should be a detailed  
review of techniques and procedures including how to  
prepare dye pot.

Supplemental or Alternative Learning Experience:

Same demonstration could be done by teacher.

Days 5, 6, 7

Specific Objectives:

Pre-plan a tie and dye design on paper.

Execute a pre-planned design onto a tie-dyed project.

Learning Experiences:

Student experimentation -

Students prepare samples experimenting with all tying techniques and several color combinations.

Students prepare dye pots. Some students may want to jig blocks to use in designs. May use Industrial Arts equipment.

Class Project

Students print tee-shirts to sell in school store, Home Ec. room, on special order, in student lounge. (This will vary with schools)

Shirts might be:

- in school colors
- in several color combinations
- in single design
- in multiple design

1. First students pre-plan on paper the design(s) to be printed.
2. Students dye shirts, translating design from paper to fabric.
3. Evaluation is based on a comparison between planned and finished design.
4. Students market shirts through appropriate channels.

Arrangements can vary:

- a. Price could cover cost of materials and enough profit to allow each participating student 1 free tee-shirt to dye.

- b. Students interested in buying shirts order them - pay at order time to cover cost of materials.
- c. Students "solarized" dept. buys all materials and out of gross sales income dept. pays students to do dyeing job.

This activity will probably require additional class time to work out details and teach simple merchandising principles as well as printing principles.

- a. Local merchants as guest speakers.
- b. Visit local store to learn about merchandising.
- c. Team teach with Math dept.
- d. Chamber of Commerce members.

Supplemental or Alternative Learning Experiences:

1. Students pre-plan design to execute on own tee-shirt, other clothing or fabric brought from home.
2. Students tie-dye large fabric pieces for school use - no cost to students, all materials supplied could be used for wall hangings, curtains, room dividers, etc. Perhaps students could be paid for work, especially if these same items were going to be purchased anyway.
3. Students tie-dye own yardage to be made up into garment (perhaps in follow-up unit on construction)

Materials and Equipment:

Student supplies, fabric and/or dye

## UNIT V

Mini Course

Industrial Arts

(Graphic Arts)

8th Grade

By George E. Larsen

Graphic arts are the visual displays of ideas, such as printed words, drawings, pictures, or graphs.

Writing surfaces throughout history has included clay, parchment, vellum, paper and cloth.

The development of the movable type by Johann Gutenberg is considered by many to have formed the base for the industrial revolution.

There are at present in existence four common systems of printing - relief, intaglio, planographic, and stencil printing.

The mini courses as outlined previously will be an exploration of these various areas of printing as best as time, equipment and availability of materials will permit. The vehicle of learning will be teacher demonstrations of equipment and processes, student involvement in laboratory projects culminating in group tours to local graphic arts connected industries.

This course outline is intended to aid the teacher in presenting an exploratory course in graphic arts. The main objective is to introduce the student to common methods practiced in this area, and to connect local careers practiced in this field.

It is expected that the teachers using this outline has a background in industrial arts or a related field.

A. Introduction to Graphic Arts - Teacher lecture, overhead, filmstrips

1. What is Graphic Arts? -A visual display of ideas, such as printed words, drawings, photographs, etc.
2. How did Graphic Arts develop?
  - a. BC - In China - clay tablets
  - b. BC - Egypt - papyrus
  - c. 105 A.D. - China - Use of paper
  - d. 400 A.D. - China - Used ink in block printing
  - e. 1452 - Johann Gutenberg - Put it all together by developing a printing system using single letters cast in type.
3. What are basic printing processes?
  - a. Relief Printing
  - b. Intaglio
  - c. Planographic
  - d. Stencil
4. Graphic Arts Industries - One of the ten leading industries in the U.S. - Include local industries in this area.
  - a. Newspaper(s) - name(s) - What process used?
  - b. Jobbers - Name(s) - Process(es) - Products  
- business forms, booklets, magazines, flyers, etc.
  - c. Related industries - Book stores, newsstands, paper and ink distributors.

B. Relief Printing - Teacher Lecture/Demonstration

1. Fundamentals
  - a. The paint system
  - b. Type sizes
  - c. Type styles
  - d. Parts of type
  - e. California Job Case -37-

2. Composing by hand (demonstration)

Set up a few short lines.

3. Get ready to print

- a. Tie up type form
- b. Take proof
- c. Correct type form

4. Print

- a. Lock up form
- b. Prepare press
- c. Print
- d. Clean Up

Suggested projects for printing on platten press. Name and address labels on cards, letters and envelopes. Ex Libris for student book collection. (This could incorporate a linoleum cut.) Admission tickets for a school, church or other organizational activity. Note paper headings, cards of holiday greetings, get well, valentine or other messages.

Have relief students lists as many occupations as possible connected with printing and what responsibilities in the work process they perform.

C. Making a Rubber Stamp - Teacher Demonstration

1. Explain process and materials involved in rubber stamp making.
2. Select wording of a rubber stamp then proceed to set the type, proof, place "bearer" strips, and lock type in a special case.
3. Make the mold, or matrix, then the stamp.
4. Mount stamp gum - Test



During this unit the student involvement through project making will depend to a large degree upon the number of students in the class, size of printing area, and other tools and materials available.

The concept of transferring images using a raised surface, as in relief printing, can be transferred to other methods and materials.

Some project and activity suggestions are:

Making a batik iron to be used in the process of printing designs on cloth. This iron can be cast in aluminum or made from wrought iron.

A branding iron, copied after those used on a cattle range, can be forged from mild steel iron. This iron can be used to transfer designs into a piece of wood - rather than cattle.

Seals (signet ring) can be made from woods or metals, even plastics and clays. The design can be etched with acid into metals, carved into wood or linoleum, fashioned out of clay, or cast in aluminum, using the investments process and styrofoam.

Other methods of image transfer is vacuum forming of plastic sheets, sand casting name plates, shaping sheet metal cookie-cutters, assemble and use electrical pencil, using stencils for reproducing (painting) designs on wood and metals. The teacher can favor methods used by local industries, and interject career information whenever possible.

#### D. Field Trips - Adult Supervised

A visit to a local industry connected directly or indirectly with graphic arts. The class can go as a group to one place, such as the local press, or form several smaller groups - each making contact with and visiting different places.

2. Composing by hand (demonstration)

Set up .. few short lines.

3. Get ready to print

- a. Tie up type form
- b. Take proof
- c. Correct type form

4. Print

- a. Lock up form
- b. Prepare press
- c. Print
- d. Clean Up

Suggested projects for printing on platten press. Name and address labels on cards, letters and envelopes. Ex Libris for student book collection. (This could incorporate a linoleum cut.) Admission tickets for a school, church or other organizational activity. Note paper headings, cards of holiday greetings, get well, valentine or other messages.

Have relief students lists as many occupations as possible connected with printing and what responsibilities in the work process they perform.

C. Making a Rubber Stamp - Teacher Demonstration

1. Explain process and materials involved in rubber stamp making.
2. Select wording of a rubber stamp then proceed to set the type, proof, place "bearer" strips, and lock type in a special case.
3. Make the mold, or matrix, then the stamp.
4. Mount stamp gum - Test

During this unit the student involvement through project making will depend to a large degree upon the number of students in the class, size of printing area, and other tools and materials available.

The concept of transferring images using a raised surface, as in relief printing, can be transferred to other methods and materials.

Some project and activity suggestions are:

Making a batik iron to be used in the process of printing designs on cloth. This iron can be cast in aluminum or made from wrought iron.

A branding iron, copied after those used on a cattle range, can be forged from mild steel iron. This iron can be used to transfer designs into a piece of wood - rather than cattle.

Seals (signet ring) can be made from woods or metals, even plastics and clays. The design can be etched with acid into metals, carved into wood or linoleum, fashioned out of clay, or cast in aluminum, using the investments process and styrofoam.

Other methods of image transfer is vacuum forming of plastic sheets, sand casting name plates, shaping sheet metal cookie-cutters, assemble and use electrical pencil, using stencils for reproducing (painting) designs on wood and metals. The teacher can favor methods used by local industries, and interject career information whenever possible.

#### D. Field Trips - Adult Supervised

A visit to a local industry connected directly or indirectly with graphic arts. The class can go as a group to one place, such as the local press, or form several smaller groups - each making contact with and visiting different places.

The latter approach can be greatly enhanced as an educational experience if student teams, armed with a camera and tape recorder, visit an industry and make a visual oral recording of what they see. Besides equipment and processes, students should record how people fit in. Interviews can dwell on people, background and job educational requirements and/or training. Later, back in school, the students can edit the slides and recordings for classroom presentation.

Each school district is located within a different communal and industrial environment - a condition dictating different classroom approaches. The organization of this particular unit is to give the junior high school student a brief orientation into the world of graphic arts, some of its more common mechanics and processes, and career opportunities within the field.

There are many more important processes that could be included in this unit, such as offset printing that the instructor may wish to explore with his/her classes.

EVALUATION REACTION FORM

FOR

TRI-BOCES CAREER EDUCATION MODULES

Instructor's Name: \_\_\_\_\_

School District: \_\_\_\_\_ Building: \_\_\_\_\_

Module Title: \_\_\_\_\_

Unit Title: \_\_\_\_\_

Grade Level: \_\_\_\_\_ Number of Students: \_\_\_\_\_

1. From the three sections listed below relating to the module, please indicate which section you felt should be improved and comment on the problem experienced.

Suggested Instructional Activities:

Follow-Up Activities:

Resource Materials:

2. If you used an evaluation device with the students, please forward it with this report.
3. How many teaching days and/or teaching periods did you use the modules relating to Career Education.

4. Please check which of the following resources were used in conjunction with this module.

Community Resources \_\_\_\_\_ Field Trips \_\_\_\_\_

5. What did you like about the material presented in this module?
6. How did the students react to material presented in this module?

Additional Comments:

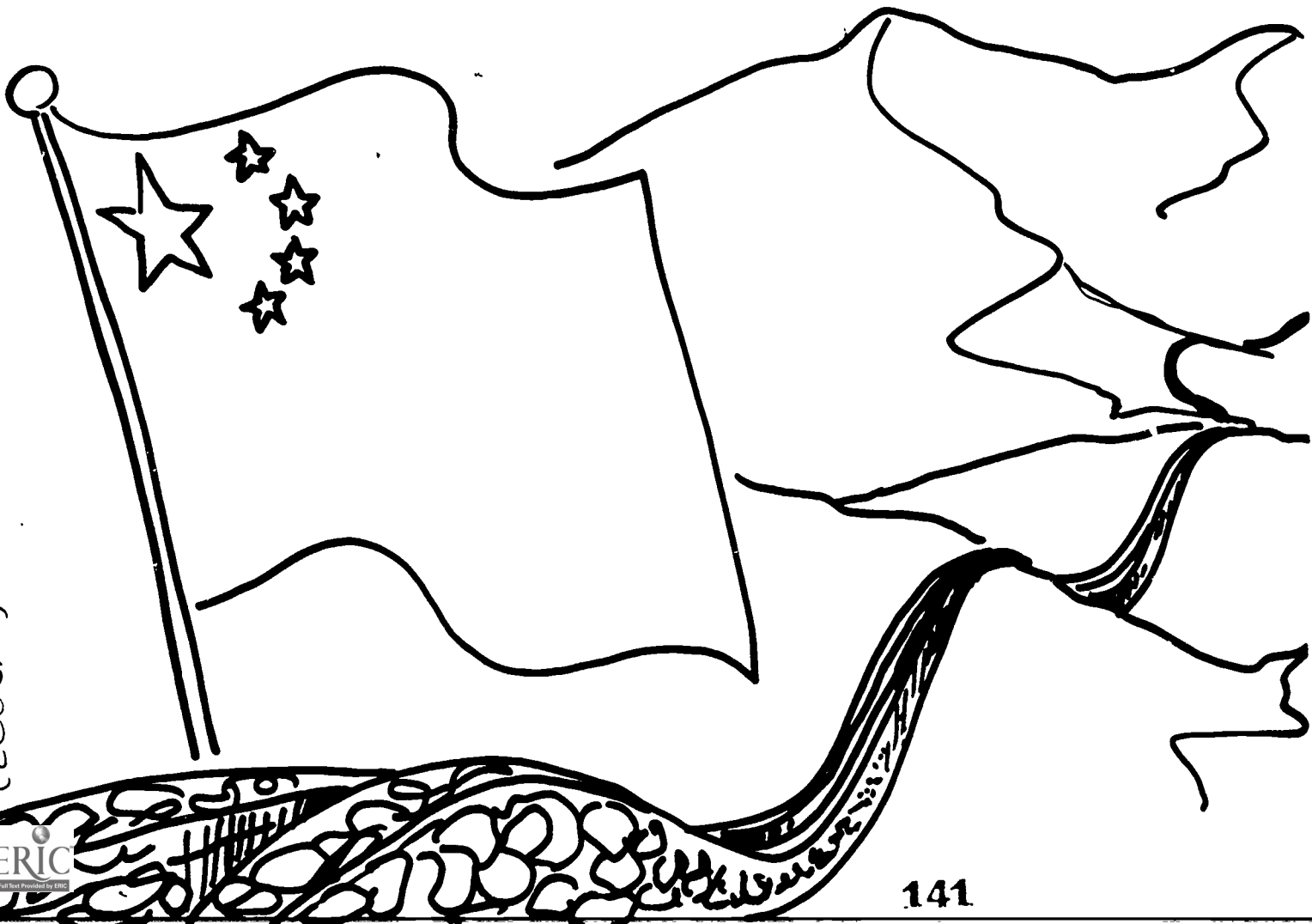
Please return to: G. Douglas Van Benschoten  
Cortland-Madison BOCES  
Clinton Avenue Extension  
Cortland, New York 13045

# CAREER EDUCATION

SOCIAL STUDIES - ASIA-AFRICAN CULTURE CURRICULUM

GRADE 9

THE PEOPLE'S REPUBLIC OF CHINA



CE003957

# CAREER EDUCATION

**PROJECT:** Tri BOCES Planning and Development of a  
Comprehensive Career Education Program K-12

**REGION:** Cayuga BOCES  
Cortland-Madison BOCES  
Tompkins-Seneca-Tioga BOCES

McEvoy Educational Center  
Cortland-Madison BOCES  
Cortland, New York 13045

1974



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## FOREWORD

In a Career Education program, each student is provided with tools and/or information to help him develop a sense of self-awareness, to become cognizant of his abilities, temperaments, aspirations, goals, values, interests and needs in order to make realistic choices in the many career options available to him in the world of work.

The material developed in this unit was based on this premise with the goal of infusing these ideas into the present curriculum.

Career Education is a facet of education that can be related to the whole student and thus provide a vehicle to help youth prepare for the future and implement decisions that will hopefully lead to a rewarding and successful life.

G. Douglas Van Benschoten  
Career Education Manager

## INTRODUCTION

This module has been developed for the purpose of infusing Career Education in the Social Studies program. This is not intended as a separate lesson apart from the syllabus, but as an integral part of the Asian Cultural Studies. The lesson contains limited elements of suggested objectives and strategies to demonstrate the ways in which teachers might effectively incorporate the concept of Career Education.

Written by: [REDACTED] Mary Ann Kane  
St. Mary's Junior High School  
Cortland, New York

Cover by: Mr. Robert Gerlach  
South Seneca Central School

**SUBJECT AREA:**

Social Studies - The People's Republic of China

**TOPIC:**

The institution of the family in China has been changed in order to direct and encourage allegiance to, and dependence upon, the central government.

**GRADE LEVEL:**

9th (Asia and African Culture curriculum)

**SUBJECT GOAL:**

To recognize that the changing role of women in the Chinese Communist society contributes to China's dramatic progress in the economic realm while discouraging the continuation of the traditional Chinese family life-style.

**BEHAVIORAL OBJECTIVES:**

1. After listening to a debate and participating in a class discussion, the student will be able to list 3 arguments supporting his viewpoint on whether or not women should share equal rights with men, and indicate for each argument if it reflects the influence of relatives, religious teachings, personal experience, or the class activities.

2. After completing the assigned research and listening to a panel discussion, the student will complete a chart of 6 government functions, for the U. S. and China affecting the work life of women in those countries. A check mark will be placed next to the items the student maintains encourages women to enter the labor force.
3. Additionally, following the research, panel discussion and class discussion, the student will list 5 occupations in the U. S. which are government-connected or supported, which have been designed for women and/or relate to the needs of other women who wish to work.
4. Having completed the reading in the available research materials, the student will prepare a comparison chart, specifying 5 factors constituting the role of the woman in traditional Chinese life and 5 in the role of a woman in the People's Republic of China.

Career Goals:

1. To be aware that careers in government-connected and supported services provide impetus for women to enter the labor force.
2. To recognize that government functions limit and/or encourage women to enter the labor market.

3. To become cognizant that attitudes toward women in the labor force are related to cultural background.

**CAREER CLUSTERS:**

Agri-Business

Public Service

Health

Manufacturing

**CAREER ELEMENTS:**

1. Self Awareness: The student will understand and recognize forces such as social, economic, educational, and cultural that influence his development.
2. Educational Awareness: The student will recognize that education experiences are a part of his career development.
3. Career Awareness: a) The student will understand the way in which occupations relate to needs and functions of society. b) The student will understand the relationship between career and life-style.

**TEACHER/STUDENT ACTIVITIES (in development order)**

1. In order for the student to discern his own attitudes infused by his culture, introduce the module with a debate- Resolved: Women should share equal rights with men. To stimulate interest and for the student to become aware of possibly stereotyped cultural attitudes, have boys debate affirmative position and girls, the negative.

2. Follow debate with open discussion of why women wish to be "liberated" in U. S., what societal feelings and forces have brought about this "present" movement, and how successful the students judge the movement will be. The teacher should help students to recall (if necessary) from 7th and 8th grade social studies, that this "movement" has been developing for 125 years in the U. S., what woman's role was at that time that initiated early reforms, and that progress here has been developmental.
3. Using text books and other reference material, have class read to learn what the traditional family life-style was in China, the family's position in traditional Chinese society, woman's role in the family, and the basic cultural (philosophical) reason for these traditions.
4. Have students investigate in most current publications, periodicals available (Reader's Guide to Periodical Literature) and visuals, woman's role in Communist China today, particularly in agriculture, manufacturing, government and health; how her new position affects the importance of the family in Chinese society: and the basic cultural (political) reason for these changes in traditions.

5. To illustrate and summarize activities #3 and #4 display in poster form the suggested quotations from Chinese philosophy of the past and present (see Instructional Materials) or similar ones students may have discovered in their investigations. If students have been exposed to Chinese artistic expression, they may interpret the quotations according to the style of the period they represent. Posters may be used by class for spontaneous discussion, and comparison with U. S. attitudes. Teacher should help students to recall (if necessary) from the study of Chinese history, that an awareness of the need for change in the status of woman was documented in 1850. (Taiping Rebellion premise), promised by the Nationalist government of the 1920's but did not become a reality until the 1950's - similar time span as in U. S.
6. Divide the class into research groups. A representative from each group will participate in a panel discussion. Each group will compile information relative to government's position today in the life of the woman worker. As these functions are described to the class, the group representative can list occupations which have opened up to carry out these functions. Some recommended areas of group inquiry for China would be the Child Care Centers (feeding stations, nurseries, kindergartens), mandated equal pay for equal work, urban communal kitchens, "voluntary" farm service by urban workers, maternity benefits, opportunities for education, party self-criticism



groups, bare-feet health services. For the United States-government-funded Day Care centers, Fair Employment Practices, maternity benefits, income tax-methods for filing returns and applicable deductions for women workers, Job Corps, status of the 27th Amendment to the Constitution. The panel will provide a basis for comparing the two societies.

Measuring Devices:

1. The teacher will evaluate:
  - a. the chart of government functions
  - b. the list of occupations
  - c. and the comparison chart of traditional and modern roles of women in China.
2. The student will submit to, and discuss with the teacher, a self-evaluation on:
  - a. the amount of work effort expended
  - b. the amount of information the student feels he has learned, and
  - c. his participation in class discussions, debate, panel.
3. The teacher will maintain a check list during the module to ascertain student's participation in debate, discussions, panel, and observable work within the group.

INSTRUCTIONAL MATERIALS:

1. List of philosophical quotations (included)
2. Reader's Guide to Periodical Literature

FOLLOW-UP ACTIVITIES:

A student debate or discussion (large or small group) concerning the advantages and/or disadvantages of government's role in the woman's liberation movements in China, as compared with the U. S.

SUGGESTED QUOTATIONS FROM CHINESE PHILOSOPHY OF THE PAST AND THE PRESENT RELATIVE TO THE STATUS OF WOMEN IN CHINA

"The woman follows the man. In her youth she follows her father and elder brother; when married, she follows her husband; when her husband is dead, she follows her son.

\*Li Ki

"The bridegroom went in person to meet the bride, the man taking the initiative and not the woman-according to the idea that regulates the relation between the strong and the weak."

\*Li Ki

"At the marriage of a young woman, her mother admonishes her, accompanying her to the door on her leaving and cautioning her with these words, "You are going to your home. You must be respectful. You must be careful. Do not disobey your husband".

\*Mencius

"Unite and take part in production and political activity to improve the economic and political status of women."

Chairman Mao, 1949

"Protect the interests of the youth, women and children—provide assistance to young student refugees, help the youth and women to organize in order to participate on an equal footing in all work useful to the war effort and to social progress, ensure freedom of marriage and equality as between men and women....."

Chairman Mao, 1945

"In order to build a great socialist society, it is of the utmost importance to arouse the broad masses of women to join in productive activity. Men and women must receive equal pay for equal work in production. Genuine equality between the sexes can only be realized in the process of the socialist transformation of society as a whole.

Chairman Mao, 1955

"With the completion of agricultural cooperation, many cooperatives are finding themselves short of labor. It has become necessary to arouse the great mass of women who did not work in the fields before to take their place on the labor front.... China's women are a vast reserve of labor power. This reserve should be tapped in the struggle to build a great socialist country."

Chairman Mao, 1955

"Enable every woman who can work to take her place on the labor front, under the principle of equal pay for equal work. This should be done as quickly as possible.

Chairman Mao, 1955

Poem by unknown author posted in a Chinese factory:

"The machine is my husband

The factory is my family

The fruits of my labor are my children

The (Communist) Party is my father and mother."

\*Disciples and interpreters of Confucius

Bibliography/Resources:

Davies, John Paton Jr. Dragon by the Tail, W. W. Norton and Co., Inc. 1972

Fairbank, John King The United States and China, 3rd edition, Harvard University Press, Cambridge, Mass. 1971

Hellerman, Leon and Stein, Alan L., Ed. China: Readings on the Middle Kingdom, Washington Square Press 1971

Kolevzon, Edward R., The Afro-Asian World - A Cultural Understanding, Allyn and Bacon 1969

Rosenfeld, Erwin and Geller, Harriet, Afro-Asian Culture Studies, Barron's Educational Series, Inc. 1973

Schram, Stuart R., Ed., Quotations from Chairman Mao Tse-Tung, Bantam Books, Inc. 1967

Terrill, Ross., Ed., China Profile, A Symposium, Friendship Press 1969.

## Bibliography

### Cayuga County BOCES, Auburn, New York

IMK5018 China

A kit containing materials for students' and teachers' reference, individual and group studies - multi-reading levels.

3MP7069 China: Rise of Community Power, 1941 - 1967

29 min. film

IVT6599 China: Special Report, 30 min. video tape

### Cortland-Madison BOCES, Cortland, New York

832-236 China: An End to Isolation

A look at today's China and its economic, agriculture and industrial accomplishments. 23 min.

333-50 Living in China Today 4 fs, 2 rec. 75 min.

### Tompkins-Seneca-Tioga BOCES, Ithaca, New York

MS 427 and MS 428 Red China, Parts 1 & 2, film

(no number) Families of the World: China fs

EVALUATION REACTION FORM

FOR

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Unit Title: \_\_\_\_\_

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