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## ABSTRACT

This third of a 3-volume curriculum guide for Grades 1-9, contains master units for Grades 8-9 which incorporate career education concepts into the existing curriculum. The career education program for Grades 8 and 9 focuses on factors related to career choice, educational planning, decisionmaking, and personal information and individual differences which will greatly affect an individual's choice of a career. The five master units for Grade 8 are: Physical Science, Survey of Literature, Contemporary English, Mathematics, and Social Studies. The four Grade 9 units are: Earth Science, Survey of Literature, Contemporary English, and Mathematics. The general format for each unit includes: Introduction, educational goals, career education concepts, informational (behavioral) objectives, instructional procedures, suggested student outcomes, and evaluation procedures. The instructional procedures are activities and experiences designed to achieve the stated goals and objectives. For each activity, the necessary resource materials are listed. A bibliography of career education materials (46 pages) completes the document. Entries are arranged alphabetically by type of material and include articles, books, and pamphlets. The information provided for pamphlets, which constitute the largest number of references, is the title and availability. (Author/RG)

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Curriculum Resource Guide

Volume I - Grades 1 - 4

Volume II - Grades 5 - 8

Volume III - Grades 8 - 9

RESEARCH AND DEVELOPMENT PROJECT  
IN  
CAREER EDUCATION

Project No. V361010L

Grant No. OEG-O-73-2990

Conducted Under  
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VT-103-220

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Petersburg Public Schools  
Career Education Project

Curriculum Resource Guide

Grades 8 - 9

Science

English

Mathematics

Social Studies

The Petersburg School Board

John D. Meade  
Superintendent

Elmore E. Rainey  
Assistant Superintendent

R. Graydon DeLoatche  
Director of Instruction

Petersburg, Virginia

1974

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## FOREWORD

The need for innovation in education has never been more apparent than it is today. Our school division is part of a changing society that creates constantly accelerating demands for new insights into the learning process, new ways of teaching, and workable strategies for relating the traditional academic focus of the classroom to the "real world" outside the classroom walls. Students, parents, teachers, business and civic groups are calling for new ways of applying resources to educational needs, for experimentation and flexibility in altering obsolete roles and for relationships within school divisions that will facilitate more creative and effective resolution of educational problems.

One of the new strategies for meeting these educational challenges is a school curriculum organized around the Career Education theme that is correlated with academic subjects. This approach presents an opportunity for students to learn by direct and immediate involvement that eliminates the distinction between "classroom" and "reality," and brings the "real world" into the classroom.

It is a distinct privilege to continue the Career Education Pilot Program under state help and supervision. Our participation in the program under federal funding for the past three years causes us to believe that its merits make further exploration and development highly desirable in the firm belief that this educational program is all-encompassing and involves education of the future. Petersburg is particularly grateful to former State Senator Eugene P. Sydnor for his interest and leadership in making possible the expansion of the Career Education Program in the Petersburg City Schools. Through the interest of Mr. Sydnor, an outstanding individual in the field of business and a great friend of public education, the Career

Education program is gaining more national interest than any other course in the history of education.

Our goal for education is that every young person leaving or completing his high school program should be ready to enter higher education or have a salable skill for entering useful and rewarding employment. This concept has been embodied within this Career Education Resource Guide and our future Career Education Model for grades K-12.

John D. Meade  
Superintendent

Task Force for Curriculum  
Development Career Education Program  
Grades 8 & 9

Peabody Junior High School

Science

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- \* Charles C. Pegram, Jr.
- \* Helen N. Smith
- \* Marian L. Walker

English

- Ruth H. Hairston
- \* Madeline R. Jones
- \* June D. Smallwood
- \* Delores V. Townes

Mathematics

- \* L. Earl Hinton
- \* Elizabeth M. Westbrook

Social Studies

- \* Charles R. Barksdale, Jr.
- \* Elsie D. Ellis
- \* Myndell G. Harris
- \* Mary K. Holland
- \* Paulette D. Phillips

Career Exploratory Activities Center

- \* Willie M. Shepperson
  
- \* Original Task Force for the Development of the Curriculum  
Resource Guide.

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## PHILOSOPHY

We, in the Petersburg Career Education Program, believe that we must make certain that paycheck education is not left to chance. We should and must develop an awareness in our students of the real world of work as it exists today and is likely to exist tomorrow.

We must remember that a career is a long sequence of work experiences, each of which builds upon the individual's preparation, not for just the first job, but for a lifetime of useful work and expanding opportunities.

The careers of students in schools today will span the last quarter of the 20th century and the first quarter of the 21st. During these years many kinds of work will become obsolete while new ones will emerge. All jobs will change substantially. Consequently, the best career education is that which prepares individuals to rise to new opportunities and to adapt themselves to change. It must make for maximal flexibility.

## INTRODUCTION

### Petersburg Career Education Project Curriculum Resource Guide

The Petersburg curriculum resource guide for the Career Education Program for grades 8 - 9 is designed to fuse and blend career education activities into the existing curriculum.

Revisions of the existing eighth and ninth grade curricula were undertaken in order to incorporate career awareness, career orientation and career exploration experiences in these grades and to re-focus the various disciplines around the career development theme. The career development experiences will serve as the vehicle or motivation for teaching the basic academic skills to the students. Therefore the career education theme will serve as a common thread to unify the educational efforts at all levels.

In developing the curriculum resource guide, master units were written in which career education concepts were incorporated into the existing curriculum at each grade level and in each discipline. Educational goals, career education concepts, and behavioral objectives were stated. Strategies and techniques were then written including suggested student outcomes for each unit.

The criteria for the selection of activities to promote career development were based upon anticipated students' needs, abilities, insights, interests, and aspirations; environmental constraints; principles of the psychology of learning, and

human growth and development.

In Volumes I and II, Grades 1-7 and 8th grade social studies, all master units are geared to the grade level of the students, and interject basic career information in all areas (art, mathematics, language arts, social studies, science, etc.), and develop a sequential plan moving from very simple identification of family, school and community helpers in the primary grades to more complex occupations in the upper elementary grades. The career education program for grades 8-9, while retaining emphasis on self-awareness, progresses toward a more detailed examination of the work world. An important focus at this level is on factors related to career choice, educational planning, decision making, personal information and individual differences which will greatly affect an individual's choice of a career.

The intent in creating these materials has been to provide an agent to facilitate career development in the school community. We do not profess to have found the ultimate answer but, rather, to have developed materials which we feel can change and improve an educational program. It is a challenge to you to take advantage of the right and the opportunity not only to create, but also to put into practice and evaluate the results of what has been created.

This guide has been developed to serve as a framework around which to build. Its success is contingent upon your efforts to expand and modify the contents of this guide for application at your particular level and the needs of your locality.

Phase II - Career Orientation and Exploration  
Grade 3  
Physical Science

## INTRODUCTION

The program for eighth grade physical science has been designed to encourage the students to become more aware of the world around him.. Employing the inquiry method, investigations, observations, and interpretations will be stressed. Human and multi-media resources and related learning excursions will be utilized to acquaint the student with himself and the world of work as it relates directly and indirectly to physical science.

The student will examine various occupational clusters through eight exploratory units which focus on specific careers as they relate to basic scientific concepts.

The main focus of the physical science program involves orienting the student to the basic concepts and career experiences which will make science a more meaningful, challenging and relevant subject.

This program is expected to whet the student's appetite for personal decision-making and career information. It should further stimulate him to continue these important investigations on his own, with the support and encouragement of his parents, teachers and counselors.

The procedures and resources suggested in this guide compliment and extend the learning experiences found in our text. They may, however, be of aid to any teacher of physical science. The extent of their use is left to the discretion of the individual teacher.

8-1-PS

## EDUCATIONAL GOALS

1. To motivate and stimulate curiosity in the student in order to help him become interested in science related careers, thus enabling him to make intelligent career choices.
2. To help the student understand basic concepts concerning the phases, structure, behavior and classification of matter as related to careers.
3. To emphasize careers derived from a knowledge of electrolytes (acids, bases, and salts) and an analysis of compounds and mixtures.
4. To provide information concerning careers related to the measurement of such phenomena as time, space, distance, volume and quantity.
5. To introduce careers related to concepts concerning the motion and energy of objects.
6. To present appropriate occupational information concerning careers related to such forms of energy as heat, light, electric energy and energy conversion.
7. To present specific observational and direct experiences stemming from knowledge gained from a study of bioscience (biophysics and biochemistry) as it relates to the world of work.
8. To review the knowledges gained from the study of careers associated with physics, chemistry, biophysics and biochemistry.

## CONCEPTS

1. Scientific knowledge helps the student to gain an understanding and acceptance of himself throughout life.
2. Careers in science provide opportunities for the student to enhance his dignity and worth.
3. Science offers an opportunity for the student to exercise curiosity and to practice sound reasoning.
4. Science provides a view of the natural world which is necessary to every well-informed person.
5. Skills in science can be useful in all the creative fields, in business, in public services and in others.
6. Man's work in science helps determine his standard of living.
7. Scientific knowledge can be a contributing factor in selecting careers.
8. Scientific knowledge provides a wide variety of careers which may be classified in various ways.
9. The scientific interpretation of work varies from individual to individual.
10. Investigations and experiments provide for individuals to learn and perform adequately in a variety of occupations.
11. Job characteristics and individuals must be flexible in a changing society.
12. A knowledge of electrolytes and compounds may be helpful in selecting a scientific career.
13. Job specialization creates interdependency.
14. A continuous and sequential series of changes and adjustments is necessary in a scientific career.
15. In selecting careers related to measurement, a knowledge of certain basic concepts is essential.

16. A knowledge of measurement is necessary for everyday living.
17. The extent of knowledge obtained about measurement may influence career development.
18. A knowledge of motion and energy in today's society helps the student to understand current problems and to pursue a career.
19. A knowledge of light, heat, electric energy and energy conversion introduces a wide array of careers.
20. A study of the forms of energy may influence the nature and structure of the work of individuals.
21. A study of the forms of energy allows for individual differences in careers, interests, abilities, attitudes and values.
22. The wide variety of careers in bioscience (biochemistry and biophysics) requires a knowledge of chemical reactions in living things and molecules important for life.
23. An understanding and acceptance of one's self is obtained from a study of bioscience (biochemistry and biophysics).
24. An understanding and acceptance of one's self obtained from a study of bioscience helps the student to have dignity and worth.
25. There is a wide variety of careers in science that may be classified in several ways.
26. Any career area has different levels of responsibility.
27. Society is dependent upon the work of many people.
28. Man's work determines his standard of living.



### INFORMATIONAL GRADIENTS

1. The student will apply scientific concepts that will enable him to make intelligent career choices in the future.
2. The student will identify careers derived from a study of the concepts of the phases, structure, behavior and classification of matter.
3. The student will analyze and appraise those careers related to electrolyte compounds and mixtures.
4. The student will examine careers related to measurement.
5. The student will define careers related to concepts on motion and energy of objects.
6. The student will review careers related to forms of energy and will evaluate their importance.
7. The student will describe careers stemming from knowledge gained pertaining to chemical reactions in living things and molecules important to life.
8. The student will recognize the many and varied careers on topics related to physics, chemistry, biophysics and biochemistry.

OVERALL EVALUATIONS

1. Investigations and interpretations
2. Inquiry discussions
3. Observations of all student activities (a) awareness of the world of work  
(b) reports-oral and written (c) behavioral changes (d) social growth
4. Test (objective and essay)
  - A. Pre-Test
  - B. Post-Test
  - C. Teacher-made
  - D. Oral
  - E. Performance test
5. Quizzes
6. Educational games
7. Practical exercises
8. Demonstrations
9. Self-evaluation
10. Expressions of creativity

UNIT I - INTRODUCTION: A WAY TO BEGIN

EDUCATIONAL GOAL:

To motivate and stimulate curiosity in the student in order to help him become interested in science related careers, thus enabling him to make intelligent career choices.

CONCEPTS:

Scientific knowledge helps the student to gain an understanding and acceptance of himself throughout life.

Careers in science provide opportunities for the student to enhance his dignity and worth.

Science offers an opportunity for the student to exercise curiosity and to practice sound reasoning.

Science provides a view of the natural world which is necessary to every well-informed person.

Skills in science can be useful in all the creative fields, in business, in public services and in others.

Man's work in science helps determine his standard of living.

INFORMATIONAL  
OBJECTIVE:

The student will apply scientific concepts that will enable him to make intelligent career choices in the future.

**INFORMATIONAL OBJECTIVE:** The student will apply scientific concepts that will enable him to make intelligent career choices in the future.

**STRATEGIES**

Perform an inquiry investigation to stimulate and motivate the interest of students. Examples are:

- a. burning candle experiment
- b. black box experiment
- c. swing object experiment

View films as an introduction to science and science related careers.

**RESOURCE MATERIALS**

Text: Abraham, Norman, et.al. Interaction of Matter and Energy.  
Chicago: Rand McNally and Company, 1968, pp. 1-8.

Text, p. 6

Films:  
What Is Science;  
Farmer, Fisherman-Norway;  
Chemistry and a Changing World;  
Automation, The Next Revolution;  
Automation-What It Is and What It Does;  
Attitudes and Occupation

Bring to class newspaper or magazine articles of occupations related to science.

Newspapers:  
Progress Index;  
Richmond Times Dispatch,  
New York Times, etc.

Magazines:  
Newsweek, Time,  
U.S. News and World Report, Ebony, Jet,  
Better Homes & Gardens,  
etc.



**INFORMATIONAL OBJECTIVE:** The student will apply scientific concepts that will enable him to make intelligent career choices in the future.

RESOURCE  
MATERIALS

STRATEGIES

Conduct an inquiry discussion on students' interpretations of science and related careers.

Identify and discuss contributions of various scientists of different races and nationalities with the use of films, transparencies and puzzles.

Introduce and stress the importance of broad careers in physical science which will be emphasized and generalized during the progress of the course.

Film: Eli Whitney,  
Puzzles, Transparencie:

Pamphlets: "A Bright  
Future For You As A  
Chemical Technician";  
"Should You Be A  
Physicist?";  
"Should You Be A  
Biologist?";  
"Should You Be A Space  
Scientist?"

At the conclusion of Section I, and again at the end of the semester, the Career Interest game will be played to make a comparison of students' interests.

Suggested Student Outcome(s) for Unit I

The eighth grade science student will have acquired a knowledge and appreciation of science and related careers and will be able to apply scientific concepts that will enable him to make intelligent career choices in the future with at least a 75 percent degree of accuracy.

Suggested Evaluation Procedure(s) for Unit I

1. Observations
2. Investigations
3. Interpretations
4. Tests
  - a. Pre-Test
  - b. Teacher-Made
5. Quizzes



## UNIT II - MATTER AND THE CLASSIFICATION OF ELEMENTS

### EDUCATIONAL GOAL:

To help the student understand basic concepts concerning the phases, structure, behavior and classification of matter as related to careers.

### CONCEPTS:

Scientific knowledge can be a contributing factor in selecting careers.

Scientific knowledge provides a wide variety of careers which may be classified in various ways.

The scientific interpretation of work varies from individual to individual.

Investigations and experiments provide for individuals to learn and perform adequately in a variety of occupations.

Job characteristics and individuals must be flexible in a changing society.

### INFORMATIONAL OBJECTIVE:

The student will identify careers derived from a study of the concepts of the phases, structure, behavior and classification of matter.

**INFORMATIONAL OBJECTIVE:** The student will identify careers derived from a study of the concepts of the phases, structure, behavior and classification of matter.

**RESOURCE MATERIALS**

**STRATEGIES**

Resource Center

Build or construct models of the state and structure of matter and show how the same principles are used in various occupations such as in the work of the chemist, machinist, carpenter, mechanic and others.

View films pertaining to the structure and behavior of matter.

Part I:  
Structure of Matter

- Films:  
Explaining Matter-Atoms and Molecules;  
Matter & Energy;  
Our Friend the Atom, Pt. I;  
Our Friend the Atom, Pt. II  
Electron, The- An Introduction

- Perform the following series of investigations and emphasize related careers.
- a. Investigation I-estimating size
  - b. Investigation IA-motion of particles
  - c. Investigation II-nature of drops
  - d. Investigation III-nature of a film
  - e. Investigation IV-separating components of matter





**INFORMATIONAL OBJECTIVE:** The student will identify careers derived from a study of the concepts of the phases, structure, behavior and classification of matter.

STRATEGIES

RESOURCE MATERIALS

Discuss the following related careers pertaining to the previous investigations. Text, pp. 15-42

- a. Mathematician
- b. Plumber
- c. Teller
- d. Laboratory Technician
- e. Research Scientist
- f. Physicist
- g. Chromotologist
- h. Photographer
- i. Cook
- j. Dietitian
- k. Nurse Anesthetist
- l. Medical Technologist

Arrange a trip to the dark room at Peabody or to a photography studio to observe the developing of films.

Darkroom,  
Photography  
Studio

**Part II:**  
Classification  
of The  
Elements

Perform the mystery powder investigation as an introduction to the classification of elements.

Mystery powder  
investigation

Do an exercise on grouping elements by appearance.

Text, p. 45

Perform an investigation on observing the effects of electrical charges.

Text, p. 46

8-13-PS

**INFORMATIONAL OBJECTIVE:**

The student will identify careers derived from a study of the concepts of the phases, structure, behavior and classification of matter.

**RESOURCE  
MATERIALS**

**STRATEGIES**

Emphasize the following related careers:

- a. Taxonomist
- b. Electrician
- c. Other related careers that have been mentioned.

Presentation on electricity by a local electrician.

Electrician

**Part III:  
Families of  
Elements**

Individual students will be assigned the following families of elements in order to find careers related to certain members of the family:

- a. Helium Family - occupations pertaining to aeronautics
- b. Halogen Family (Chlorine) - occupations pertaining to the purification of water
  1. Plan a trip to a water purification plant.
- c. Oxygen Family - occupations related to making compressed O<sub>2</sub>
  1. View a film.
- d. Nitrogen Family (arsenic)-occupations related to making insecticides, pesticides, etc.

Water Purification  
Plant, Petersburg, V

Film: O for Oxygen

Film: Sulfur and  
Its Compounds

**INFORMATIONAL OBJECTIVE:** The student will identify careers derived from a study of the concepts of the phases, structure, behavior and classification of matter.

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RESOURCE  
MATERIALS

STRATEGIES

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View and discuss a film about the factory.

Film: Factory, The-How  
A Product Is Made,

- a. Carbon Family - ten occupations involving the making of cookware
- b. Beryllium Family (calcium) - occupations pertaining to making vitamins
- c. Lithium Family (potassium) - occupations involving the making of fertilizers.

Presentation of a discussion on practical chemistry by a chemist.

Dr. Lewis, chemist

Trip to the Virginia State College Farm as a follow-up of the chemist's presentation.

The Virginia State  
College Farm

Suggested Student Outcome(s) for Unit II

From a list of 50 careers, the student will select those related to the phases, structure, behavior and classification of matter with an accuracy of at least 75%.

Suggested Evaluation Procedure(s) for Unit II

1. Observation
2. Interpretation
3. Inquiry discussion
4. Teacher-made test
5. Teacher-made quiz

### UNIT III - CLASSIFICATION OF THE ELEMENTS

**EDUCATIONAL GOAL:** To emphasize careers derived from a knowledge of electrolytes (acids, bases, and salts) and an analysis of compounds and mixtures.

**CONCEPTS:** A knowledge of electrolytes and compounds may be helpful in selecting a scientific career.

Investigations and experiments provide for individuals to learn and perform adequately in a variety of occupations.

Job specialization creates interdependency.

A continuous and sequential series of changes and adjustments is necessary in a scientific career.

**INFORMATIONAL OBJECTIVE:** The student will analyze and appraise those careers related to electrolyte compounds and mixtures.

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**INFORMATIONAL OBJECTIVE:** The student will analyze and appraise those careers related to electrolyte compounds and mixtures.

**STRATEGIES**

- View a filmstrip on acids, bases, and salts.
- Conduct an inquiry discussion on acids, bases, and salts in everyday living.
- Perform the following or similar investigations:
  - a) Investigation - testing for acids and bases
  - b) Investigation - testing foods for acids, bases and salts
  - c) Investigation - properties of acids
  - d) Investigation - properties of bases
  - e) Investigation - precipitation reaction

Discuss the following careers related to acids, bases and salts:

- a. Food analyzer
- b. Pharmacist
- c. Dietitian
- d. Chef
- e. Chemist
- f. Research Scientist
- g. Others

**RESOURCE MATERIALS**

- Filmstrip:  
Chemistry For Today Series Group I
- Text, pp. 81-107
- Text, pp. 81-107
- Student - selected reference  
Modern Physical Science Workbook or related book
- Modern Physical Science Workbook or related book  
Text, pp. 81-107

Paraphlets:  
"Should you be a Pharmacist?",  
"Dietetics"



**INFORMATIONAL OBJECTIVE:** The student will analyze and appraise those careers related to electrolyte compounds and mixtures.

**STRATEGIES**

**RESOURCE MATERIALS**

Dietitian

Arrange a discussion or interview with a dietitian to show the role of acids, bases and salts in food.

Conduct an inquiry discussion on the use of compounds.

- Part II:  
Compounds  
1. Synthesizing  
2. Analyzing

Perform the following or a related series of investigations:

- a) Investigation - making compounds
- 1. Arrange an interview with a pharmacist to learn techniques in the mixing of medicines.
- b) Investigation - concept of analysis
- c) Investigation - gaining additional evidence
- d) Investigation - problem of color
- e) Investigation - role of energy

Discuss the following careers related to the study of compounds:

- a. Sanitarian
- b. Registered Nurse
- c. Practical Nurse
- d. Dentist
- e. Pharmacist
- f. Medical Technologist
- g. Food Analyst

Modern Physical  
Science Workbook

Pharmacist

Text, pp. 89-107

Pamphlets:  
"Health Careers  
For You - A Career  
as a Licensed  
Practical Nurse in  
Virginia";  
"Should you be a  
Dentist?"

8-19-PS

**INFORMATIONAL OBJECTIVE:** The student will analyze and appraise those careers related to electrolyte compounds and mixtures.

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STRATEGIES

Arrange a field trip to a chemical plant to observe careers related to chemistry.

RESOURCE  
MATERIALS

Hercules Incorporated,  
Allied Chemical Company,  
Richmond-Petersburg Turnpik  
Dupont Chemical Co.,  
Philip Morris Plant



Suggested Student Outcome(s) for Unit III

The student will enumerate with an accuracy of at least 75% those careers stemming from his study of electrolytes and analysis of compounds.

Suggested Evaluation Procedure(s) for Unit III

1. Observations
2. Investigations
3. Interpretations
4. Tests
5. Quizzes
6. Discussions
  - a. Classroom work
  - b. Trips
  - c. Resource persons

#### UNIT IV - MEASUREMENT

**EDUCATIONAL GOAL:** To provide information concerning careers related to the measurement of such phenomena as time, space, distance, volume and quantity.

**CONCEPTS:** In selecting careers related to measurement, a knowledge of certain basic concepts is essential.

A knowledge of measurement is necessary for everyday living.

The extent of knowledge obtained about measurement may influence career development.

**INFORMATIONAL OBJECTIVE:** The student will examine careers related to measurement.

INFORMATIONAL OBJECTIVE: The student will examine careers related to measurement.

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STRATEGIES

Conduct an inquiry discussion on the interpretation and importance of measurement in everyday living.

View films and filmstrips related to measurement.

Film:

a) Metric System, The,

Filmstrips:

Experience in Physical

Science Series:

Experiments with

Length,

Experiments with Mass,

Experiments with

Volume and Density,

Time and Its Measure-

ment

Perform the following or related investigations and emphasize the relevant careers:

- a) Investigation - measurement of length and area
- b) Investigation - determining the volume of solids
- c) Investigation - mass and volume of water (regular objects)
- d) Investigation - mass and volume of water (irregular objects)
- e) Investigation - mass and volume of liquids other than water.
- f) Investigation - inventing a simple timing device.

Text, pp. 109-133

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RESOURCE MATERIALS

Text, pp. 109-133

INFORMATIONAL OBJECTIVE: The student will examine careers related to measurement.

RESOURCE MATERIALS

STRATEGIES

- Discuss the following related careers
- a. Mathematician
  - b. Clockmaker
  - c. Construction Worker
  - d. Surveyor
  - e. Construction Contractor
  - f. Mechanic
  - g. Carpenter
  - h. Banker
  - i. Astronomer
  - j. Radar Technician
  - k. Accountant
  - l. Dietitian

Pamphlets:  
"Should you be a Mathematician?,"  
"Should you go into the Construction Business?,"  
"Should you be a Banker?,"  
"Should you be an Accountant?,"  
"Dietetics"

Discuss the work of a city surveyor, an accountant or a construction contractor to show the importance and use of measuring techniques.

City Surveyor,  
Accountant,  
Construction Contractor

Send a small group of students to the resource center to construct models of objects to see how measurement is used.

Resource Center

Suggested Student Outcome(s) for Unit IV

1. The student will identify ten careers that require a knowledge of measurement for successful job performance, by responding to oral and written questionnaires with at least 85% accuracy.
2. At least 85% of the students will analyze the work of the twelve occupations studies in relation to unit four, and list under the proper category those careers utilizing length, mass, volume, density, time.

Suggested Evaluation Procedure(s) for Unit IV

1. Written Questionnaire
2. Investigations
3. Observations
4. Interpretation of material

UNIT V - MOTION AND ENERGY

EDUCATIONAL GOAL: To introduce careers related to concepts concerning the motion and energy of objects.

CONCEPT: A knowledge of motion and energy in today's society helps the student to understand current problems and to pursue a career.

INFORMATIONAL OBJECTIVE: The student will define careers related to concepts on motion and energy of objects.

**INFORMATIONAL OBJECTIVE:** The student will define careers related to concepts on motion and energy of objects.

**STRATEGIES**

Conduct an inquiry discussion on the interpretation of motion in everyday living.

View films pertaining to motion and energy.

Perform the following or related investigations:

- a. Investigation - Falling Objects
- b. Investigation - The Natural Condition of An Object
- c. Investigation - Speed
- d. Investigation - Force and Bending
- e. Investigation - Force and Stretching
- f. Investigation - Inertia

Conduct an inquiry discussion on friction in everyday living.

View a film on friction.

Perform the following investigations:

- a) Investigation - Friction
- b) Investigation - Motion and The Force of Gravity
- c) Investigation - Measuring Acceleration
- d) Investigation - Mass

**RESOURCE MATERIALS**

Text, pp. 135-184

Films:

- a) Gravity, Weight and Weightlessness
- b) Force of Gravity
- c) Gravity - Low Inertia

Text, pp. 435-184

Film:

Friction and Its Effects

Text, pp. 135-184

8-27-PS

**INFORMATIONAL OBJECTIVE:** The student will define careers related to concepts on motion and energy of objects.

RESOURCE  
MATERIALS

STRATEGIES

Conduct an inquiry discussion on momentum in everyday living.

Discuss an airplane pilot, truck or bus driver emphasizing the relationship of momentum in his occupation.

Airplane Pilot,  
Truck or Bus Driver  
a) Mayton  
b) Allied  
c) Metropolitan  
d) Tri-City

Discuss how momentum affects the occupation of the following workers:

- a. Pilot
- b. Dragracer
- c. Astronaut
- d. Truck or Bus Driver
- e. Heavy Equipment Operator
- f. Diver
- g. Bridge Contractor
- h. Miner
- i. Road Builder

Pamphlets:  
"Should you be a Space Scientist?",  
"Should you go into the Construction Business?"

Arrange a field trip to Langley Field to observe careers related to aircraft.

Langley Field,  
Hampton, Va.

Have students interview a local auto racer.

Automobile Race Driver



Suggested Student Outcome(s) for Unit V

1. Following investigations, discussions and the viewing of films, at least 35% of the students will be able to compare and contrast those careers related to the fundamental principles of energy and motion.
2. From a list of suggested activities each student will choose, organize and present a project showing how momentum affects the occupation in which he is interested.

Suggested Evaluation Procedure(s) for Unit V

1. Quizzes
2. Tests
3. Observation

## UNIT VI - FORMS OF ENERGY

**EDUCATIONAL GOAL:** To present appropriate occupational information concerning careers related to such forms of energy as heat, light, electric energy and energy conversion.

**CONCEPTS:** A knowledge of light, heat, electric energy and energy conversion introduces a wide array of careers.

A study of the forms of energy may influence the nature and structure of the work of individuals.

A study of the forms of energy allows for individual differences in careers, interests, abilities, attitudes and values.

**INFORMATIONAL OBJECTIVE:** The student will review careers related to forms of energy and will evaluate their importance.

**INFORMATIONAL OBJECTIVE:** The student will review careers related to forms of energy and will evaluate their importance.

**RESOURCE  
MATERIALS**

**STRATEGIES**

Text, pp. 207-266

**Part I:**  
Heat  
Conduct an inquiry discussion pertaining to heat energy and the use of thermometers in everyday living.

- Perform the following or a related series of investigations:
- a. Investigation - energy transfer
  - b. Investigation - heat storage
  - c. Investigation - heat and temperature
  - d. Investigation - heat and volume
  - e. Investigation - heat and molecular attraction
  - f. Investigation - heat flow
  - g. Investigation - color and heat

View films on heat energy.

**Films:**  
Heat - Its Nature and Transfer,  
Thermometers-How We Use Them

Discuss the following careers related to heat energy:

- a. heat and air conditioner technician, estimator and repairman
- b. insulation workers employing various types of insulation techniques
- c. carpenter
- d. clothing manufacturer
- e. boiler technician and inspector
- f. metallurgist

**INFORMATIONAL OBJECTIVE:** The student will review careers related to forms of energy and will evaluate their importance.

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**STRATEGIES**

Presentation from a resource person on clothing suitable for the various seasons.

Presentation from a heating or air conditioning technician.

**Part II:**  
Light and Electricity

View films relating to light.

- Perform the following or related investigations:
- a) Investigation - some properties of a mirror
  - b) Investigation - mirror reflections
  - c) Investigation - an image behind a mirror
  - d) Investigation - comparing angles formed when light is reflected
  - e) Investigation - behavior of light passing through different substances
  - f) Investigation - mirror and wave action
  - g) Investigation - changing the direction of wave travel
  - h) Investigation - viewing light through small openings

---

**RESOURCE MATERIALS**

Resource Person -  
J. C. Penney's or a similar department store

Heating or air conditioning technician

Films:

- a) Learning About Light,
- b) Laser, The

8-32-PS

**INFORMATIONAL OBJECTIVE:** The student will review careers related to forms of energy and will evaluate their importance.

STRATEGIES

- i) Investigation - reflection and absorption
  - j) Investigation - color and chemicals
  - k) Investigation - electricity and light
  - l) Investigation - heat and electricity
  - m) Investigation - chemical potential energy
- Discuss the following careers related to a study of light and electricity:
- a) electrician
  - b) research scientist
  - c) telephone technician
  - d) diver
  - e) electrical appliance technician and repairman
  - f) physicist
  - g) electronic computer

Pamphlets:  
 "Should You Go Into Electronic Computer Programming",  
 "Should You Be A Physicist?"

Arrange a field trip to an electric power company.

Electric power company

Plan a field trip to the Surry Nuclear Power Plant to observe energy transfer in nuclear reactions and the various jobs involved in operating the facility.

Surry Nuclear Power Plant, Surry, Virginia



Suggested Student Outcome(s) for Unit VI

1. Using worksheets the student will differentiate between the forms of energy and match at least 5 careers to each form of energy.
2. Given a list of the forms of energy, the student will interpret the use he makes of at least two forms in his daily living by constructing a dirorama or a display board, engaging in research experiences, or choosing an activity of his choice.

Suggested Evaluation Procedure(s) for Unit VI

1. Investigations
2. Teacher made test
3. Quizzes

## UNIT VII - BIOSCIENCE

### EDUCATIONAL GOAL:

To present specific observational and direct experiences stemming from knowledge gained from a study of bioscience (biophysics and biochemistry) as it relates to the world of work.

### CONCEPTS:

The wide variety of careers in bioscience (biochemistry and biophysics) requires a knowledge of chemical reactions in living things and molecules important for life.

An understanding and acceptance of one's self is obtained from a study of bioscience (biochemistry and biophysics).

An understanding and acceptance of one's self obtained from a study of bioscience helps the student to have dignity and worth.

### INFORMATIONAL OBJECTIVE:

The student will describe careers stemming from knowledge gained pertaining to chemical reactions in living things and molecules important to life.

**INFORMATIONAL OBJECTIVE:** The student will describe careers stemming from knowledge gained pertaining to chemical reactions in living things and molecules important to life.

**RESOURCE  
MATERIALS**

**STRATEGIES**

**Part I:**  
Chemical Reactions  
In Living Things

Conduct an inquiry discussion on chemical reactions in living things. Text, pp. 271-309

Perform the following or a similar series of investigations:

- a) Investigation - reactions in a yeast culture
- b) Investigation - reactions in sprouting seeds
- c) Investigation - processes that produce CO<sub>2</sub>

**Part II:**  
Molecules Important  
For Life

Conduct an inquiry discussion on molecules important for life (existence).

Conduct an inquiry discussion on food and energy in living things.

Perform the following investigations:

- a) Investigation - some reactions of sugar
- b) Investigation - starch and sugar
- c) Investigation - chlorophyll and photosynthesis
- d) Observe film on Photosynthesis  
Investigation - light and food production
- e) Investigation - experiments with leaves kept in darkness

Text, pp. 271-309

Film: How Green Plants  
Make and Use Food

8-36-PS



**INFORMATIONAL OBJECTIVE:**

The student will describe careers stemming from knowledge gained pertaining to chemical reactions in living things and molecules important to life.

**RESOURCE MATERIALS**

**STRATEGIES**

- f) Investigation - the action of membranes
- g) Investigation - movement of molecules against gravity

Careers related to bioscience are:

- a) biologist
- b) biochemist
- c) biophysicist
- d) physicians
- e) nurses
- f) nurses aid
- g) medical technician
- h) medical technologist
- i) physical therapist
- j) public health agent
- k) sanitarian
- l) cytotechnologist
- m) dentist
- n) mental laboratory assistant
- o) inhalation therapist
- p) medical secretary
- q) radiologic technologist
- r) dietitian
- s) medical social worker
- t) pharmacist
- u) farmer

- Pamphlets:
- "Careers In Dental Hygiene",
  - "Should You Be A Medical Technologist?",
  - "Should You Be A Pathologist?",
  - "Should You Be A Doctor?",
  - "Health Careers",
  - "Should You Be A Medical Technologist?"



**INFORMATIONAL OBJECTIVE:** The student will describe careers stemming from knowledge gained pertaining to chemical reactions in living things and molecules important to life.

STRATEGIES	RESOURCE MATERIALS
Have students interview a physician and a nurse (R.N.) to see how a knowledge of bioscience is necessary for both occupations.	Physician, Registered Nurse
Arrange a field trip to Medical College of Virginia in order to observe discussed occupations.	Medical College of Virginia, Richmond, Virginia
Take a trip to State Laboratories (food, drug, agriculture, water, air, medical) to observe a variety of discussed occupations related to science.	State Laboratories
Have a discussion or presentation by a physical therapist or a respiratory therapist.	Physical Therapist, Respiratory Therapist

**INFORMATIONAL OBJECTIVE:** The student will describe careers stemming from knowledge gained pertaining to chemical reactions in living things and molecules important to life.

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STRATEGIES	RESOURCE MATERIALS
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Have students interview a physician and a nurse (R.N.) to see how a knowledge of bioscience is necessary for both occupations.

Physician,  
Registered Nurse

Arrange a field trip to Medical College of Virginia in order to observe discussed occupations.

Medical College of  
Virginia, Richmond,  
Virginia

Take a trip to State Laboratories (food, drug, agriculture, water, air, medical) to observe a variety of discussed occupations related to science.

State Laboratories

Have a discussion or presentation by a physical therapist or a respiratory therapist.

Physical Therapist,  
Respiratory Therapist

Suggested Student Outcome(s) for Unit VII

1. After conducting investigations and interviews, 90% of the students will be able to compare and contrast those careers related to the fundamental principles of bioscience.
2. The student will analyze and evaluate the importance of chemical reactions by answering worksheet questionnaires with 85% accuracy.
3. After conducting investigations on the chemical reactions of sugar, starch, yeast and sprouting seeds the student will express in written form his opinions of the importance of chemical reactions to daily living.

Suggested Evaluation Procedure(s) for Unit VII

1. Observations of pupil reaction
  - A. Trips
  - B. Resource Persons
2. Investigations
3. Tests

UNIT VIII -- REVIEW AND A NEW BEGINNING

**EDUCATIONAL GOAL:** To review the knowledges gained from the study of careers associated with physics, chemistry, biophysics and biochemistry.

**CONCEPTS:** There is a wide variety of careers in science that may be classified in several ways.

Any career area has different levels of responsibility.

Society is dependent upon the work of many people.

Man's work determines his standard of living.

**INFORMATIONAL OBJECTIVE:** The student will recognize the many and varied careers on topics related to physics, chemistry, biophysics and biochemistry.

**INFORMATIONAL OBJECTIVE:** The student will recognize the many and varied careers on topics related to physics, chemistry, biophysics and biochemistry.

**STRATEGIES**

**RESOURCE  
MATERIALS**

Each student will list the five careers of his choice in order of preference and discuss each career from the following points of view.

Text, pp. 319-326

- a. basic area of science involved
- b. nature of work
- c. preparation
- d. salary
- e. reason for choice

As an outcome of the semester's work, each student will be given a mimeographed list of careers related to each basic area of science.

Mimeographed Career  
Sheets

Introduce new concepts in science and emphasize new job areas that may result.

Magazines, Newspapers,  
Science References,  
Radio, Television

Administer the career interest game to observe if career choice(s) has changed from the beginning of the semester.

Career Interest Game or  
similar game

8-41-PS

Suggested Student Outcome(s) for Unit VIII

1. Given a list of the various phases of physical science which were studied during the year, the student will list at least 5 careers under each heading.
2. After reviewing the careers related to physical science at least 65% of the students will be able to evaluate these careers in terms of vocabulary, personnel, earnings, desirability and job requirements.

Suggested Evaluation Procedure(s) for Unit VIII

1. Observations
  - A. Trip
  - B. Investigation
  - C. Resource Persons
2. Investigations
3. Interpretations
4. Tests
  - A. Teacher-Made
  - B. Standardized
  - C. Post
5. Quizzes

Phase II -- Career Orientation and Exploration

Survey of Literature

Grade 8



## INTRODUCTION

Without doubt, language is one of man's most important human assets, enabling him to communicate beyond the baser animals.

Years ago, the student took language for granted. He never questioned the "whys." Today, the question "why" is presenting quite a challenge to educators in all fields of endeavor because students are not adhering to the traditional drills that have not yielded a practical end. This being the case, many educators concur that teaching techniques and strategies must be relevant, sequential and flexible to everyday living.

The eighth grade Survey of Literature Program is designed to encourage young people on the junior high level to look more closely at their own individual strengths and weaknesses which will affect career choices. It will also enable the student to become aware of the important aspects of the world of work.

Regarding educational goals, the program is adapted to make instructional approaches relevant to living in a dynamic, flexible world.

Through the Language Arts Program, the student will engage in a variety of learning techniques that will assist him in developing appropriate communicative skills required in various careers. Numerous career opportunities will be unveiled to the student through utilization of human resources, career exploration kits, related trips, and an assortment of media - reading material, tapes, television, films, filmstrips, slides, transparencies, records, flow charts, audio-tapes, models and cassette tapes.

8-1-SL

## EDUCATIONAL GOALS

1. To create an awareness of the problems encountered when dealing with people.
2. To provide the student with a variety of supplementary learning devices that will enhance his interpretation and comprehension of multiple occupational opportunities.
3. To emphasize the eternal struggle of man in the ever-changing world.
4. To expose the student to various literary expressions which will permit him to explore in depth the concepts of careers in order to better understand the problem-solving and decision-making aspects of the career education program.
5. To realize the importance of communicating in a changing world.
6. To acquaint the student with a variety of poetic expressions that bring out the concepts of career education.

## CONCEPTS

1. An understanding and acceptance of self is important throughout life.
2. Persons need to be recognized as having dignity and worth.
3. Occupations exist for a purpose.
4. There is a wide variety of careers which may be classified in several ways.
5. Work means different things to different people.
6. Education and work are interrelated.
7. Individuals differ in their interests, abilities, attitudes and values.
8. Occupational supply and demand has an impact on career training.
9. Job specialization creates interdependency.
10. Environment and individual potential interact to influence career development
11. Occupations and life styles are interrelated.
12. Individuals can learn to perform adequately in a variety of occupations.
13. Career development requires a continuous and sequential series of both work and occupational choices.
14. Various groups and institutions influence the nature and structure of work.
15. Individuals are responsible for their career planning.
16. Job characteristics and individuals must be flexible in a changing society.
17. Individuals must be able to perceive themselves as an integral part of their massive environment.
18. Change is inevitable.

19. Individuals must be flexible in a changing society.
20. Occupations and language usage are interrelated.
21. Education and occupation are interdependent.
22. Various groups and institutions influence the demand and supply of the labor force.
23. Job characteristics and individuals change with time.
24. Communication is vital--not only in daily living but also in careers.
25. Various groups and institutions influence occupational supply and demand.

## INFORMATIONAL OBJECTIVES

1. The student will investigate the differences in individuals and in their approaches to life and career.
2. The student will analyze the role that emotions and personal experiences play in multiple career choices.
3. The student will identify man's struggle in an ever-changing world by the introduction of appropriate selections.
4. The student will compare himself to characters in his textbook selections in terms of those decisions which must be made concerning education and career choices.
5. The students will recognize the many forms of communication encountered in the textbook selections.
6. The student will evaluate poetry as a medium which may be used to express ideas, feelings, interests, abilities, attitudes and values.

## UNIT I -- DEALING WITH PEOPLE

- EDUCATIONAL GOAL:** To create an awareness of the problems encountered when dealing with people.
- CONCEPTS:**
- 1.) An understanding and acceptance of self is important throughout life.
  - 2.) Individuals differ in interests, abilities, attitudes and values.
- INFORMATIONAL OBJECTIVE:** The student will investigate the differences in individuals and in their approaches to life and career.

---

### STRATEGIES

Students will be given the Kuder Interest Inventory, if not taken previously. Kuder Interest Inventory

Based on the results of the inventory, students will research their interest field and write a short paragraph on a chosen topic.

Students will exchange papers and evaluate paragraphs in class.

Having read selections in the textbook, students will discuss the relevancy of the characters' reactions to real life situations. Textbook

Students will list all occupations revealed in the selections and check the career kits to find the requirements for them.

Students will present their findings to the entire class for discussion.

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### RESOURCE MATERIALS

8-6-51

**INFORMATIONAL OBJECTIVE:** The student will investigate the differences in individuals and in their approaches to life and career.

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STRATEGIES

Students will discuss orally any job that they have ever held, or would wish to have in the future.

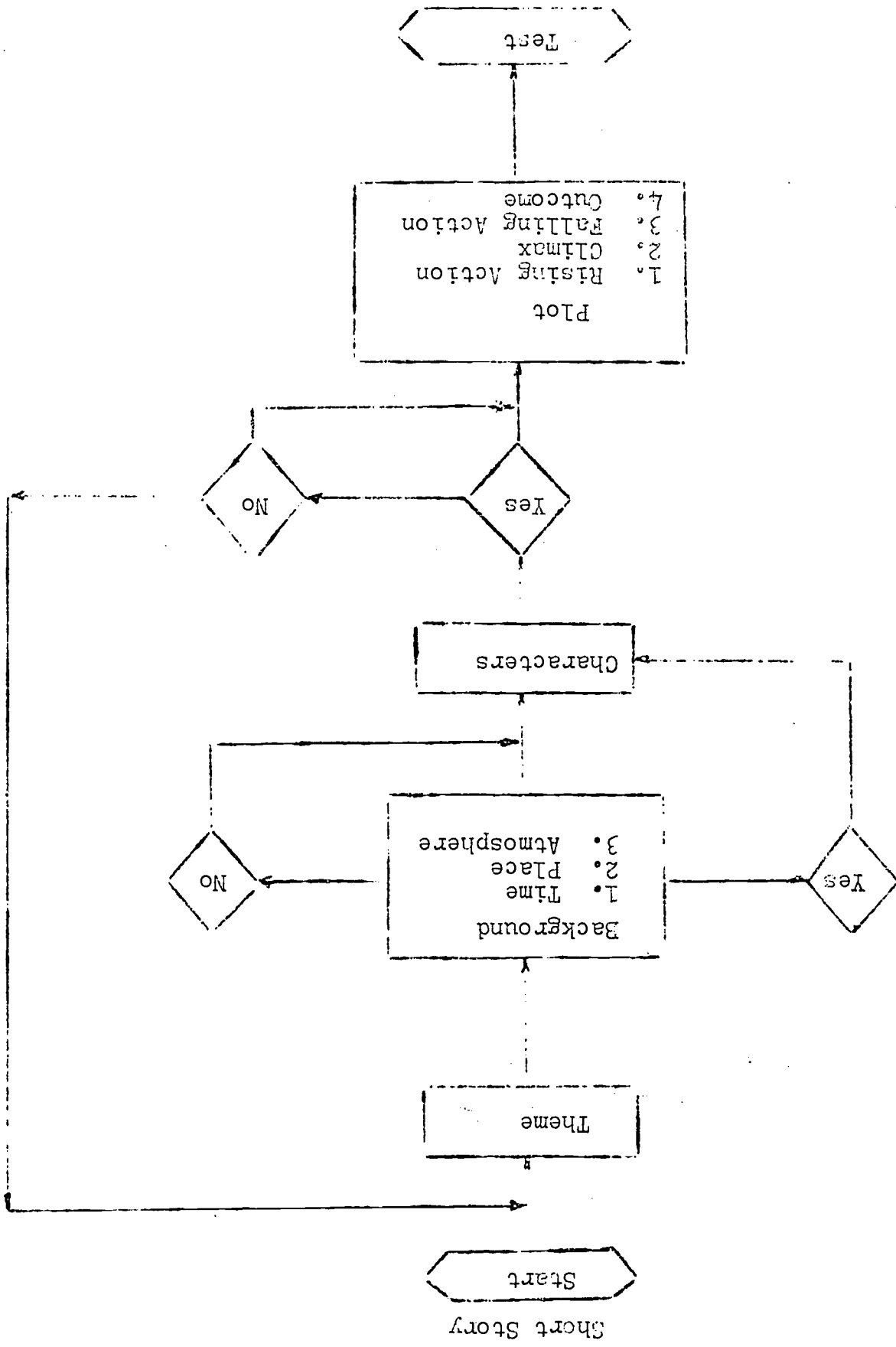
Students interested in dealing with people, as opposed to things, will write a brief paragraph stating their interest and at the same time giving their reason.

Students will present their paragraph to the class, answering all questions classmates may ask.

Students will list 10 ways or reasons for wanting to work with people or vice-versa.

Students will debate whether or not dealing with people is a lucrative occupation.

RESOURCE  
MATERIALS



TS-9-8



Suggested Student Outcome(s) for Unit I

1. Having read prescribed selections relative to "Dealing With People," the student will list five reasons for wanting to work with people or with things.
2. Having researched an occupational choice through the library and resource center, the student will write a paragraph stating whether he would continue to pursue his original occupational choice as a career.

Suggested Evaluation Procedure(s) for Unit I

1. Writing paragraphs
2. Oral reports
3. Debates
4. Observations

## UNIT II - EMOTIONS AND PERSONAL EXPERIENCES

**EDUCATIONAL GOAL:** To provide the student with a variety of supplementary learning devices that will enhance his interpretation and comprehension of multiple occupational opportunities.

**CONCEPT:** Individuals can learn to perform adequately in a variety of occupations.

**INFORMATIONAL OBJECTIVE:** The student will analyze the role that emotions and personal experiences play in multiple career choices.

---

### STRATEGIES

In order to introduce the unit, the students will view the film I Want To Be. The students will discuss the film.

The students will form small investigation teams and research an occupation - perhaps the field of interest expressed in unit one. The student may find that there is something else that interests him to the extent that he may wish to investigate that occupation.

The students will write a short paragraph on their personal experiences while on the job.  
Example: Babysitting, etc.

The students will research the occupations that require a "Cool Head" and tell why they think they do.

After reading the selections in the book, the students will list all the outstanding emotions and personal experiences. Discuss orally.

---

### RESOURCE MATERIALS

Film: I Want To Be

Resource Center

Library

Career Kits,  
Textbooks

8-10-SL

INFORMATIONAL OBJECTIVE: The student will analyze the role that emotions and personal experiences play in multiple career choices.

---

STRATEGIES

Students may either illustrate or bring in pictures displaying the better known emotions. Present to class and explain or get class to guess.

Pictures,  
Drawings

Students may wish to stage a comedy showing what would happen if one allowed the emotions to hold sway in some occupations. Examples: Doctor, Teacher.

On the other hand, students may show the tragic results of uncontrolled emotions.

The students will check the career kits and review their Kuder Interest Inventory to see if they have the emotional make-up for the career of their choice.

Career Kit,  
Kuder Interest  
Inventory

RESOURCE  
MATERIALS

Suggested Student Outcome(s) for Unit II

1. Having recognized outstanding emotions related to personal experiences in textbook reading selections, the student will stage a comedy revealing desirable as well as undesirable emotions in a variety of occupations.  
(Examples: doctor, teacher, secretary, etc.)

Suggested Evaluation Procedure(s) for Unit II

1. Group participation
2. Writing paragraphs
3. Oral reports
4. Dramatizations
5. Research papers

UNIT III - MAN'S STRUGGLE FOR SURVIVAL IN A CHANGING WORLD

EDUCATIONAL GOAL To emphasize the eternal struggle of man in the ever-changing world.

- CONCEPTS:
- 1.) Environment and individual potential interact to influence career development.
  - 2.) Job characteristics and individuals must be flexible in a changing society.

INFORMATIONAL OBJECTIVE: The student will identify man's struggle in an ever-changing world by the introduction of appropriate selections.

---

STRATEGIES

The students will write letters to influential people in the Petersburg area inviting them to speak on any obstacle that they encountered in reaching their goals.

The students will evaluate the speaker's address and express any ideas they have on the subject.

The students will interview local people to gain an insight into their struggles to attain their goals.

The students will bring back results of interviews and present to class.

The students will list the struggles that they might encounter in their job. Example: Rushing traffic, overcrowding, water pollution, etc.

The students will compare lists in class.

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RESOURCE MATERIALS

Human Resources

**INFORMATIONAL OBJECTIVE:** The student will identify man's struggle in an ever-changing world by the introduction of appropriate selections.

---

STRATEGIES

The students will view Job Opportunities Now for Inner City Youths.

The students will evaluate the filmstrip.

The students will view the filmstrip So You Want A Summer Job.

The students will discuss the filmstrip with the idea of ascertaining just how helpful it is.

---

RESOURCE MATERIALS

Filmstrip:  
Job Opportunities Now for Inner City Youth

Filmstrip:  
So You Want A Summer Job

8-14-SL

Suggested Student Outcome(s) for Unit III

1. Having read selections identifying man's struggle for survival in a changing world, and having interviewed resource persons to gain insight into their struggle to attain their goals, the student will discuss in groups examples of environmental, economical, and/or social struggles that he has to currently encounter.
2. After viewing filmstrips Job Opportunity : Now—For Inner City Youth and So You Want A Summer Job, the student will list ten obvious environmental problems that affect his daily life.

Suggested Evaluation Procedure(s) for Unit III

1. Letter writing
2. Oral reports
3. Interviews
4. Observations
5. Individual response to questions

#### UNIT IV - PROBLEM-SOLVING AND DECISION-MAKING

##### EDUCATIONAL GOAL:

The expose the student to various literary expressions which will permit him to explore in depth the concepts of careers in order to better understand the problem solving and decision-making aspects of the career education program.

##### CONCEPTS:

- 1.) Job characteristics and individuals change with time.
- 2.) Job characteristics and individuals must be flexible in a changing society.

##### INFORMATIONAL OBJECTIVE:

The student will compare himself to characters in his textbook selections in terms of those decisions which must be made concerning education and career choices.

---

#### STRATEGIES

Having read textbook selections, the students will list the problems met, and the decisions made.

In small discussion groups, the students will talk over the reactions of the characters and, possibly, bring out their own approaches to the problems.

Students will hear from local people concerning their problems and decisions. (Physical Handicaps; etc.)

The student will evaluate the speaker's address.

The students will view the filmstrip Job Opportunities Now.

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#### RESOURCE MATERIALS

Textbook:  
Voices

Human Resources

Filmstrip: Job Opportunities Now

8-16-SL



**INFORMATIONAL OBJECTIVE:**

The student will compare himself to characters in his textbook selections in terms of those decisions which must be made concerning education and career choices.

---

**STRATEGIES**

Students will list job opportunities that interest them in the filmstrip.

Students will view the filmstrip: Learning to Make a Decision.

Students will list the steps involved in making a decision.

The students will be given a problem to solve. Using the steps they have already seen, they will write a short paragraph which will be presented to the class for evaluation and criticism.

---

**RESOURCE MATERIALS**

Filmstrip: Learning To Make A Decision

Suggested Student Outcome(s) for Unit IV

1. Having read and discussed textbook selections, the student will make a list of his major personal problems (handicaps, mental, physical, or intellectual). These may be itemized in Column A; then in Column B, the student will list the positive steps he has taken to arrive at satisfying decisions concerning his problems.
2. Having viewed both filmstrips Job Opportunities Now and Learning to Make a Decision, the student will make a list of all the job opportunities of which he is aware. Then he will list these in the order of both personal preference and in the order of achievability for himself. The student will circle the career opportunity that may be most achievable for him.
3. Having viewed both filmstrips and solved one sample problem given him, the student will collect from several issues of a daily newspaper, problems faced by people in everyday life (Dear Abby) etc., and list the steps involved in solving each of these problems.

Suggested Evaluation Procedure(s) for Unit IV

1. Group participation
2. Oral discussion
3. Observation
4. Resource persons

UNIT V - COMMUNICATING IN YOUR WORLD

EDUCATIONAL GOAL: To realize the importance of communicating in a changing world.

CONCEPT: Communicating is vital-not only in daily living but also in careers.

INFORMATIONAL OBJECTIVE: The student will recognize the many forms of communication encountered in the textbook selections.

---

STRATEGIES

The students will research the various forms of communication. Textbook: Voices

The students will divide into interest groups and work on a chosen form of communication. Career Kits  
Small investigation teams may need to visit different places.

The students will take extensive notes on communication in preparation for either a written or oral report on the subject. Dictionary

After reading the selections in the textbook, the students will make a list of the ways of communicating in each story. Textbook

The students will write simply setting forth the purposes for this type of communication and present them to the class for evaluation. Resource Center

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RESOURCE MATERIALS

8-19-SL

**INFORMATIONAL OBJECTIVE:** The student will recognize the many forms of communication encountered in the textbook selections.

RESOURCE  
MATERIALS

STRATEGIES

Library

The students will assess the value of communication in occupations by listing those directly involving communications with people.

The students will debate orally the pro's and con's of verbal vs. non-verbal communication in occupations.

Students will bring to class examples of communication media. Example: Newspapers, records, etc.

Students will present to the class projects that they have researched during this unit of study.

Students will evaluate each project as it is presented. (Students may use tapes, clippings, overhead projectors, or any media that will reinforce their positions)

Audio Tape

Suggested Student Outcome(s) for Unit V

1. Having completed strategies in Unit V, the student will list ten different forms of both verbal and non-verbal communication.
2. Having completed strategies in Unit V, the student will write a paragraph in which he shows the relationship of various forms of communication to his chosen career.

Suggested Evaluation Procedure(s) for Unit V

1. Group participation
2. Oral and written research reports
3. Writing paragraphs
4. Debates
5. Projects

## UNIT VI - POETRY IN MOTION

### EDUCATIONAL GOAL:

To acquaint the student with a variety of poetic expressions that bring out the concepts of career education.

### CONCEPTS:

- 1.) Occupations and life styles are interrelated.
- 2.) Environment and individual potential interact to influence career development.

### INFORMATIONAL OBJECTIVE:

The student will evaluate poetry as a medium which may be used to express ideas, feelings, interests, abilities, attitudes and values.

---

### STRATEGIES

The students will view the filmstrip:  
Understanding Poetry.

The students will read the poems in the textbook and paraphrase the meaning. If the need arises, they may need to go back to the filmstrip.

The students will list the occupations and write sentences telling how the environment may have affected their life style.

The students will improvise a drama based on one of the poems. (Pantomime)

Some students may wish to compose poetry as a special project.

Other students may wish to decorate the bulletin board with pictures depicting occupations brought out in poems.

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### RESOURCE MATERIALS

Filmstrip: Understanding Poetry

Textbook: Voices

Library

**INFORMATIONAL OBJECTIVE:** The student will evaluate poetry as a medium which may be used to express ideas, feelings, interests, abilities, attitudes and values.

---

STRATEGIES

The students will bring in poems they have cut out of magazines and newspapers that have to do with the many ways people make a living.

The students will bring in poems that reflect a definite life style.

The students will go to the library and look for poems that reflect more of a satisfaction for their life styles than a love of materialistic values.

RESOURCE  
MATERIALS

Suggested Student Outcome(s) for Unit VI

1. After viewing and discussing the filmstrip Understanding Poetry, and reading poems in the textbook and in magazines, the student will create lines of verse with emphasis on occupations. These poems will be compiled in a class journal.
2. After surveying names of artists in current literature, preferably newspapers and magazines, the student will relate the career opportunities in writing poetry.

Suggested Evaluation Procedure(s) for Unit VI

1. Observations
2. Writing sentences
3. Dramatizations
4. Projects
5. Discussions



PHASE II - CAREER ORIENTATION AND EXPLORATION  
Contemporary English

Grade 8

## INTRODUCTION

Without doubt, language is one of man's most important human assets, enabling him to communicate beyond the baser animals.

Years ago, the student took language for granted in that he never questioned the "why." Today, the question "why" is presenting quite a challenge to educators in all fields of endeavor because students are not adhering to the traditional drills that have not yielded a practical end. This being the case, many educators concur that teaching techniques and strategies must be relevant, sequential and flexible to everyday living.

The eighth grade contemporary English Program is designed to encourage young people on the junior high level to look more closely at their own individual strengths and weaknesses which will affect career choices. It will also enable the student to become aware of the important aspects of the world of work.

Regarding educational goals, the program is adapted to make instructional approaches relevant to living in a dynamic, flexible world.

Through the Language Arts Program, the student will engage in a variety of learning techniques that will assist him in developing appropriate communicative skills required in various careers.

Numerous career opportunities will be unveiled to the student through utilization of human resources, career exploration kits, related trips, and an assortment of media - reading materials, tapes, television, films, filmstrips, slides, transparencies, records, flow charts, audio-tapes, models and cassette tapes.

8-1-CE

## EDUCATIONAL GOALS

1. To encourage the student to pursue his own interests, abilities and values.
2. To realize that basic educational goals are prerequisites to job success.
3. To encourage the student to develop his own skills by assembling information on various job opportunities.
4. To understand the flexibility of the language and its use in order to meet the needs of careers in an ever-changing society.
5. To perceive the interrelationship between occupational choice and future life-style.
6. To develop educational skills essential to career development.

## CONCEPTS

1. Occupations exist for a purpose.
2. Education and work are interrelated.
3. Individuals differ in their interests, abilities, attitudes and values.
4. Environment and individual potential interact to influence career development.
5. Occupations and life-styles are interrelated.
6. Career development requires a continuous and sequential series of choices.
7. Individuals are responsible for their career planning.
8. Various groups and institutions influence occupational supply and demand.

## INFORMATIONAL OBJECTIVES

1. The student will differentiate the individuals in the classroom in terms of their differences in interests, abilities, attitudes and values.
2. The student will evaluate the relationship between the communication skills he develops and their determination of his degree of occupational success.
3. The student will investigate special employment situations to secure writing material and to observe job performances.
4. The student will identify the interrelationship between work and oral and written communication.
5. The student will analyze the relationship between a given life style, language usage and a particular occupation.
6. The student will demonstrate the realization that specific skills are necessary for all jobs.
7. The student will demonstrate the realization that there is a wide variety of careers which may be classified in several ways.

UNIT I - INTRODUCTION

**EDUCATIONAL GOAL:** To encourage the student to pursue his own interests, abilities, and values.

**CONCEPT:** Individuals differ in their interests, abilities, attitudes and values.

**INFORMATIONAL OBJECTIVE:** The student will differentiate the individuals in the classroom in terms of their differences in interests, abilities, attitudes and values.

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RESOURCE  
MATERIALS

STRATEGIES

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The student will join a group to chat about his interests and hobbies and to get to know his classmates.

The student will be introduced to the semester's work which will accent career education.

The student will check the Kuder Interest Inventory.

Kuder Interest  
Inventory

The student will orally assess the validity of his inventory evaluation.

The student will view the film I Want To Be.

Film: I Want To Be

The student will present a short oral talk on his interest, hobbies, likes and/or dislikes.

The student will play the Career Game to reinforce his ideas about his interests, abilities, attitudes and values.

Career Game Kit

INFORMATIONAL OBJECTIVE: The student will differentiate the individuals in the classroom in terms of their differences in interests, abilities, attitudes and values.

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RESOURCE  
MATERIALS

STRATEGIES

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The student will discuss the results of the game which may or may not have made him aware of possible career choices.

8-6-0E

Suggested Student Outcome(s) for Unit I

1. Having been exposed to media and diversified interests, abilities, attitudes and values, the student will write a brief summary depicting how he views himself as compared with at least three other individuals.
2. After having done item 1, the student will relate to the class through discussion how his attitudes, interests, and abilities affect his job choice.

Suggested Evaluation Procedure(s) for Unit I

1. Kuder Interest Inventory
2. Oral and written reports
3. Individual response to questions
4. Group participation



UNIT II - LANGUAGE

**EDUCATIONAL GOAL:** To realize that basic educational goals are prerequisites to job success.

**CONCEPT:** Education and work are interrelated.

**INFORMATIONAL OBJECTIVE:** The student will evaluate the relationship between the communication skills he develops and their determination of his degree of occupational success.

---

STRATEGIES

The teacher will introduce the unit by directing the student's attention to a displayed career cluster chart.

The student will view a filmstrip and will list occupationally related words.

The student will apply his listed words by writing them in sentences.

Using a sample letter as a guide, the student will write a letter inviting to the classroom a representative from each work category in order to become aware of the different levels of language usage and how they are related to the particular work task.

The student will select one of the classroom visitors and compare orally his approximate educational status with a second speaker.

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RESOURCE MATERIALS

Career Clusters Chart  
(developed by U.S.  
Office of Education)

Filmstrip:  
Word Study Series

Sample letter, Career  
Clusters chart

**INFORMATIONAL OBJECTIVE:**

The student will evaluate the relationship between the communication skills he develops and their determination of his degree of occupational success.

**RESOURCE MATERIALS**

**STRATEGIES**

Following a sample handout, the student will prepare to write a short paragraph on "My Future Plans" by outlining who, what, where, when, and why.

After the student views filmstrips on Steps In Building a Paragraph, he will develop a rough draft of his paragraph.

The student will display his rough draft on an opaque projector for group comments.

The student will write his final copy to pass to the teacher for evaluation.

Filmstrip:  
Steps In Building A Paragraph

Opaque Projector

Suggested Student Outcome(s) for Unit II

1. Having viewed and discussed a filmstrip on writing compositions, the student will write a composition to another classmate to try to persuade him to change or strongly consider changing his job preference.

Suggested Evaluation Procedure(s) for Unit II

1. Observation
2. Written sentences and paragraphs
3. Oral and written reports
4. Teacher-made objective test

8-10-CE

### UNIT III - COMPOSITION

**EDUCATIONAL GOAL:** To encourage the student to develop his own skills by assembling information on various job opportunities.

- CONCEPTS:**
- 1.) Environment and individual potential interact to influence career development.
  - 2.) Individuals are responsible for their career planning.

**INFORMATIONAL OBJECTIVE:** The student will investigate specific employment situations to secure writing material and to observe job performances.

---

#### STRATEGIES

#### RESOURCE MATERIALS

The student will tour a local production plant to observe the variety of work tasks involved.

The student will question employers concerning various job requirements - age, education, hours, benefits, etc.

The student will discuss orally the relationship among sights, sounds and jobs as well as various job requirements.

After viewing and discussing a filmstrip on Organizing Your Writing, the student will select a subject related to his tour and write a composition emphasizing sights, sounds and job requirements.

The student will list the different work forces observed while touring the plant.

8-11-CE

INFORMATIONAL OBJECTIVE: The student will investigate specific employment situations to secure writing material and to observe job performances.

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STRATEGIES

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RESOURCE  
MATERIALS

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The student will prepare to write his composition by developing an outline from notes taken on his trip.

After the student has placed his composition in a grab bag, he will join a group and then select a composition from the grab bag to evaluate on the basis of information content.

8-12-CE

Suggested Student Outcome(s) for Unit III

1. Having viewed and discussed a filmstrip on writing compositions, the student will write a composition to another classmate to try to persuade him to change or strongly consider changing his job preference.
2. Having researched his occupational choice, the student will write a report relating how machinery will or will not affect his occupational choice in the year 2,000.

Suggested Evaluation Procedure(s) for Unit III

1. Observation
2. Individual response to questions
3. Oral and written reports
4. Group participation

UNIT IV -- GRAMMAR

EDUCATIONAL GOAL: To understand the flexibility of the language and its use in order to meet the needs of careers in an ever-changing society.

- CONCEPTS:
- 1.) Career development requires a continuous and sequential series of choices.
  - 2.) Education and work are interrelated.

INFORMATIONAL OBJECTIVE: The student will identify the interrelationship between work and oral and written communication.

---

STRATEGIES

The student will listen to Side I of the present tense in order to distinguish standard and sub-standard usage.

The student will study textbook material on sentence patterns and then compose 5 sentences using present tense forms with a job term as subject.

The student will write 2 of his sentences on the blackboard for class discussion.

The student will listen to Side II of Audio-Lingual record which discusses past tense and past participle tense in standard and sub-standard usage.

The student will study the past tense and past participle forms of verbs listed in his textbook, then work out related exercises.

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RESOURCE MATERIALS

Record: Audio-Lingual English Series

Textbook: Contemporary English 8

Audio-Lingual English Series

8-14-CE

INFORMATIONAL OBJECTIVE: The student will identify the interrelationship between work and oral and written communication.

---

STRATEGIES

The student will complete sentences about careers on worksheets by inserting the correct verb form.

The student will listen to Audio-Lingual Series on plural noun forms.

The student will form plurals of occupational terms (Ex.-technician, technicians, employee, employees) and exchange papers with his classmates for correction.

After the student has completed the above assignment, the group will entertain questions relative to problems encountered in forming plurals of the words given.

The student will change the forms of all nouns given in a paragraph concerning an occupation. (Excerpts from an occupational brief.)

The student will render his paragraph orally to secure class approval and disapproval.

The student will begin listening to the Audio-Lingual Series on negatives.

The student will complete exercises on negatives in the Audio-Lingual Series Workbook.

After the student has completed the above assignment, he will compare his choices with a classmate.

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RESOURCE  
MATERIALS

Record:  
Audio-Lingual English  
Series

Record: Audio-Lingual  
English Series

8-15--CE



**INFORMATIONAL OBJECTIVE:** The student will identify the interrelationship between work and oral and written communication.

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STRATEGIES

RESOURCE  
MATERIALS

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The student will respond in writing to an incorrect statement delivered by the teacher. Ex.--I ain't had no job last summer. Dey don't pay nobody no money.

8-16-CE

Suggested Student Outcome(s) for Unit IV

1. Using a sample skit as a guide, the student will write a skit reflecting the appropriate and inappropriate choice of words when conducting an interview.
2. Given 50 items, the student will show how language and job choice interlock by matching 30 items on a teacher-made test.
3. Having studied standard and sub-standard English, the student will write a poem using his job choice as subject employing standard English first and then translating it to sub-standard English.

Suggested Evaluation Procedure(s) for Unit IV

1. Diagnostic test
2. Teacher-made test
3. Written sentences and paragraphs
4. Group participation
5. Oral-written reports
6. Role playing

## UNIT V - USAGE

### EDUCATIONAL GOAL:

To perceive the interrelationship between occupational choice and future life-style.

### CONCEPTS:

- 1.) Occupations and life-style are interrelated.
- 2.) Occupations exist for a purpose.

### INFORMATIONAL OBJECTIVE:

The student will analyze the relationship between a given life style, language usage and a particular occupation.

---

### STRATEGIES

The student will tour the residential sections in Petersburg to form an idea of various life-styles as they are influenced by occupations.

The student will express orally his thoughts on the various locations observed on the field trip (stressing life-styles).

The student will select a residential site in Petersburg and write a brief descriptive paragraph stating why he wants to live in the named section and what type of occupation would permit him to reside there.

The student will write a letter inviting the Mayor of Petersburg to present comments on the interrelationship among life-styles, educational requirements and occupational choices.

The student will comment on the Mayor's talk from a positive or negative view.

---

### RESOURCE MATERIALS

Field trip of Petersburg  
(Residential Sections)

Human Resource  
(City Mayor)

8-18-CE

**INFORMATIONAL OBJECTIVE:** The student will analyze the relationship between a given life style, language usage and a particular occupation.

---

**STRATEGIES**

The student will orally explain a reproduced picture or an illustration depicting his ideal residential community.

From textbook examples, the student will compare 10 sentences that include idiomatic expression.

The student will list 5 occupationally related idioms and 5 non-occupationally related idioms.

The student will read silently and discuss orally textbook material on using the dictionary.

The student will view a filmstrip on dictionary usage.

The student will consult the dictionary for definitions of occupationally related terms and will then apply each word in a sentence.

The student will prepare and present a 2 minute talk utilizing occupationally related terms.

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**RESOURCE  
MATERIALS**

Filmstrip: Using the  
Dictionary

Suggested Student Outcome(s) for Unit V

1. Having studied life-styles in his community, the student will show how a given life-style is associated with language usage and a particular occupation by making a tape illustrating how and why this is true.
2. Given a typical local situation, the student will take a prominently known person from his residential area, place him in a ghetto, and judge how the individual will react being relocated.

Suggested Evaluation Procedure(s) for Unit V

1. Observation
2. Group discussion
3. Letter writing
4. Two-minute talks
5. Letter writing (invitations)

UNIT VI - SKILLS

EDUCATIONAL GOAL: To develop educational skills essential to career development.

CONCEPT: Various groups and institutions influence occupational supply and demand.

INFORMATIONAL OBJECTIVES: The student will demonstrate the realization that specific skills are necessary for all jobs.

The student will demonstrate the realization that there is a wide variety of careers which may be classified in several ways.

---

STRATEGIES

The student will check newspapers, television programs, magazines, and pamphlets for job information pertaining to supply and demand.

The student will present his information to the class for discussion.

The student will write letters to the Bureau of Labor requesting information about future job outlooks throughout the country.

The student will listen to Audio-Lingual records on comparatives and will complete follow-up practice exercises.

The student will study his textbook material on forming comparatives and will complete practice exercises.

The student will form comparisons from a list of words given by the teacher.

---

RESOURCE MATERIALS

Record: Audio-Lingual English Series

Textbook: Contemporary English 8

S-21-CE

**INFORMATIONAL OBJECTIVES:** The student will demonstrate the realization that specific skills are necessary for all jobs.

The student will demonstrate the realization that there is a wide variety of careers which may be classified in several ways.

---

STRATEGIES

The student will take a field trip to local institutions to gain insight into numerous job opportunities.

The student will list the various jobs he observed on the field trip.

The student will compare in writing the job information received from the Bureau of Labor with his own assessment of job opportunities in Petersburg.

---

RESOURCE  
MATERIALS

Petersburg Training  
School,  
Petersburg General  
Hospital,  
Virginia State College,  
Petersburg City Jail,  
etc.

Suggested Student Outcome(s) for Unit VI

1. Having investigated employment through a field trip to a local plant, the student will list the plant's job requirements, age, education, hours, and benefits, and will compare them with those of another plant with a 100% degree of accuracy.
2. Having researched his occupational choice, the student will write a report relating how machinery will or will not affect his occupational choice in the year 2,000.

Suggested Evaluation Procedure(s) for Unit VI

1. Group participation
2. Oral reports
3. Teacher-made objective test
4. Letter writing (requests for information)



Note: This is a sample contract package; therefore, it must not be concluded that it represents the only contractual procedure. The teacher and/or student may draw up either an A, B or C Contract depending on the ability and the need of the individual student. The teacher must know his/her student.

67

Sample Contract Activity  
Package

8-25-CE

Contract Activity Package-Subjects & Verbs

Rationale: The purpose of this activity package is to provide a variety of learning activities so that you will be able to recognize and use subjects and verbs correctly.

Behavioral Objectives:

1. Having viewed two filmstrips Subjects and Verbs and Problems of Sentence Construction, the eighth grade English student will write answers to questions at the end of the filmstrips with 97% accuracy.
2. Listening to pop records of his choice twice, the eighth grade English student will write subjects and verbs that he hears in two columns with 100% accuracy.
3. Given newspapers from which to clip articles, the eighth grade English student will copy 10 sentences then circle subjects and underline verbs in each with 90% accuracy.
4. Having read pages 167 through 169, the eighth grade English student will write out the exercises that follow with 97% accuracy.

Behavioral Objectives (Cont'd)

5. Given a work sheet with twenty (20) words to use as subjects, each eighth grade English student will supply verbs to form complete sentences with 100% accuracy.
6. Given a work sheet divided into two columns headed "Subjects and Verbs," with words to be used as verbs, the eighth grade English student will list a subject for each given verb with 100% accuracy.
7. Given a paragraph to rearrange according to subject-verb orders, the eighth grade English student will underline subjects and verbs with 85% accuracy.
8. Given newspapers from which to copy ten sentences, the eighth grade English student will underline all subjects and verbs correctly.

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

Contract A- \_\_\_\_\_ 8 Activities and score 100 - A \_\_\_\_\_

Pre-test Score ( ) \_\_\_\_\_ Post-test Score ( ) \_\_\_\_\_

Mastery still required in instructional objectives: \_\_\_\_\_

Areas of Concentration \_\_\_\_\_

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_

4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_

7 \_\_\_\_\_ 8 \_\_\_\_\_ 9 \_\_\_\_\_

Teacher's Signature \_\_\_\_\_ Student's Signature \_\_\_\_\_

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

Contract A- \_\_\_\_\_ 8 Activities and score 100 - A

Pre-test Score ( ) \_\_\_\_\_ Post-test Score ( ) \_\_\_\_\_

Mastery still required in instructional objectives:

Areas of Concentration

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_

4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_

7 \_\_\_\_\_ 8 \_\_\_\_\_ 9 \_\_\_\_\_

Teacher's Signature \_\_\_\_\_ Student's Signature \_\_\_\_\_

Topic: Diagnostic Test On Subjects and Verbs

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

Rationale: The purpose of this test is to inform you and your teacher as to what you already know about the correct usage of subjects and verbs and subject-verb order in English sentences.

Directions: After you have read the imaginative story below twice, rearrange each group of words so that they make complete sense; then, underline each subject once and each verb twice.

Out in the yard playing I was all by myself when a big black bear came right out of the garage and growled at me. Growling like everything toward the house I up and jumped that old bear came right after me. Stopped and picked I up a big rock and threw it at him. Snack in the eye and he fell right over and rolled down the hill and it hit him. Growling like everything a big truck came along got out the driver that picked up the bear was and.

Activity I

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

Directions: In the appropriate column below, supply a career related subject for each of the verbs listed.

Ex. Verb - Work; Subject - secretaries  
           S.           V.  
           Secretaries/work.

	Verbs	Subjects
1.	type	1.
2.	build	2.
3.	give	3.
4.	paid	4.
5.	think	5.
6.	get	6.
7.	arrive	7.
8.	make	8.
9.	taught	9.
10.	operate	10.



Activity III

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

Directions: In the appropriate column below, supply a career related verb for each subject word listed. Ex. Carpenters/Nail

Subjects	Verbs
1. bankers	1.
2. electrician	2.
3. nurse	3.
4. lawyer	4.
5. disc jockey	5.
6. musicians	6.
7. artists	7.
8. telephone operators	8.
9. store clerks	9.
10. airline stewardess	10.

Activity III

Name \_\_\_\_\_

Date \_\_\_\_\_

Topic: Subject and Predicate Activity

Directions: By this time you should know that an English sentence has two major parts. These parts are called the subject and the predicate. On page 169 in your textbook, there are ten sentences. Write each sentence in the space below and put a line to divide the subject from the verb or predicate. Ex. John/will be a senior next year.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

## Activity IV

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

Topic: Prepositional Phrases

Rationale: To reinforce your reading and speaking skills, you must not mistake the object of a preposition for the subject of a sentence; for, the object of a preposition is never the subject of a sentence. In order for you to recognize objects of prepositions, you must first know the prepositions.

Directions: On page 193 in your textbook, there are 36 listed prepositions. Select any 25 of them and make a prepositional phrase by adding a noun or a pronoun to each one. An example is given below. Use your paper.

## A. Prepositions

1. Under
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.

## B. Prepositional Phrases

1. Under the water
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.

Activity V

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

Topic: Subjects and Verbs

Directions: Copy ten sentences from the newspaper which is provided for you here in the classroom; then underline each subject once and each verb twice. Use the space below.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

## Activity VI

Post Test:

Topic: Subjects and Predicates

Name \_\_\_\_\_

Date \_\_\_\_\_

Rationale: The purpose of this test is to evaluate what you have actually learned during the past two weeks about the correct usage of subjects and verbs and to provide an opportunity for you to make application of each of the skills learned.

Directions: In a paragraph consisting of no more and no less than 10 sentences, express the following aspects of your career interest:

1. The nature of the occupation
2. The Working hours
3. The fringe benefits (if any)
4. The future outlook
5. The educational requirements
6. The salary given or the desired salary.

Note: Do not forget to indent your paragraph.

### Reporting Alternatives

1. The student will compare subjects and verbs listed from records that he heard, then volunteers will report their listings to the class. (Group Activity)
2. The student will discuss teacher-made questions on the filmstrips. (Oral Activity)
3. The student will use opaque projector to flash news articles with underlined subjects and verbs.
4. The student will score his work sheets from teacher answer key then announce his scores to the class.
5. The student will present his scores on self-assessment test to the teacher.
6. The student will work in groups to discuss responses to textbook exercises, then group leaders will report to the class at large.

Media Resource Alternatives

1. Copies of Newspapers.
2. Filmstrips- Subjects and Verbs and Problems of Sentence Construction.
3. Records and record player.
4. Textbook- Contemporary English.

8-37-CE

Phase II -- CAREER ORIENTATION AND EXPLORATION

Mathematics

Grade 3



## INTRODUCTION

The career education program for eighth grade mathematics is designed to help students develop an awareness of the full range of options in the world of work through problem-solving, individual study, group study, discussions; interpretations, and the utilization of human resources, assorted media, and related field trips.

Our intention is to infuse career education into the existing mathematics curriculum. Students will explore various careers in which mathematics is applied. We hope to expose our students to relevant career concepts and experiences that will make mathematics a more practical and interesting subject.

This guide was developed in conjunction with four units of the eighth grade mathematics curriculum that are conducive to the study of careers and career concepts as well as basic concepts in mathematics.

We realize that some careers demand more mathematical know-how than others. However, a strong mathematical foundation is essential for personal and avocational needs as well as vocational needs.

## EDUCATIONAL GOALS

1. To develop an awareness of the importance of mathematics in our society and the diversity of careers in which mathematics is needed.
2. To relate computational skills used in problematic solutions to daily life and the world of work.
3. To develop a positive attitude toward work and preparation for work.
4. To show how a knowledge of measurement in mathematics applies to personal and occupational needs.
5. To help students gain an awareness of the extensive use of geometric design in a technological society.
6. To motivate students in the study of algebra by relating man's mastery of an ever increasing body of mathematical knowledge to his ability to solve complex technological and scientific problems.
7. To reinforce basic skills in mathematics through real-life experiences.

## CONCEPTS

1. Occupations exist for a purpose.
2. Every career requires some special preparation.
3. Education and work are interrelated.
4. Basic education enhances job performance.
5. Different kinds of work requires varying degrees and types of educational preparation.
6. Work that is enjoyed by some people is disliked by others.
7. Job characteristics and individuals must be flexible in a changing society.
8. Many jobs require a knowledge of mathematics.
9. Mathematics can influence certain job specializations.
10. Individuals are responsible for their career planning.
11. Some workers produce goods; others produce services.
12. Society is dependent upon the work of many people.
13. People work for various rewards and satisfactions.
14. Various groups and institutions influence the nature and structure of work.
15. Occupations and life styles are interrelated.

## INFORMATIONAL OBJECTIVES

1. Students will recognize the importance of mathematics in our society.
2. Students will discover that computational skills are needed in daily life and the world of work.
3. Students will recognize the influence of basic education on successful performance in various occupational areas.
4. Students will identify ways in which basic mathematics is essential to businesses and consumers relative to selling and buying goods and services.
5. Students will identify personal and occupational areas in which a knowledge of measurement is essential.
6. Students will demonstrate an awareness of the role of geometric design in the production and aesthetic appeal of goods, services and facilities.
7. Students will explore certain occupational areas in which algebra contributes to the development of feasible solutions to technical and scientific problems.

UNIT I - AN INTRODUCTION TO MATH AND HOW IT  
RELATES TO THE WORLD OF WORK

**EDUCATIONAL GOAL:** To develop an awareness of the importance of mathematics in our society and the diversity of careers in which mathematics is needed.

- CONCEPTS:**
- 1.) Occupations exist for a purpose.
  - 2.) Every career requires some special preparation.
  - 3.) Education and work are interrelated.

**INFORMATIONAL OBJECTIVE:** Students will recognize the importance of mathematics in our society.

---

STRATEGIES

Engage a person from the local placement bureau to discuss careers that require a strong mathematical background.

Visit the employment commission to get information on careers that require a strong mathematical background.

Visit several businesses and industries in which mathematics is used in the different phases of operation.

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RESOURCE  
MATERIALS

American Personnel, Inc.  
Va. State College  
Placement Service  
Richard Bland College  
Placement Service

Virginia Employment  
Commission

Bank of Virginia  
Thalhimer  
Safeway  
Allied Chemical Co.  
Plastics Division

8-5-M

**INFORMATIONAL OBJECTIVES:** Students will recognize the importance of mathematics in our society.

**STRATEGIES**

Observe and discuss films on careers that require a knowledge of mathematics.

Students will plan a visit to a mathematics Laboratory.

Construct a display board to show the relationship of different types of mathematics to various careers.

Students will participate in mathematical games and puzzles that measure potential for careers in mathematics.

Have a guidance counselor speak about job opportunities in the immediate vicinity.

Have students determine the mathematical knowledge needed for the occupations discussed by the guidance counselor.

Plan a Math Careers Day and have consultants discuss the importance of mathematics in their occupations.

**RESOURCE MATERIALS**

**Films:**

Choosing Your Occupation  
Donald in Mathmagic Land  
Mathematician And The  
Itiver

Careers in Business  
Data Processing

Virginia State College

Magazines, Charts and Posters

Puzzles and Games:  
The Career Game  
The Cluster Game

Guidance Counselor  
Job Experience Kit

Encyclopedia of  
Careers and Vocational  
Guidance

Consultants

**INFORMATIONAL OBJECTIVE:** Students will recognize the importance of mathematics in our society.

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**STRATEGIES**

Interview teachers to find out how important mathematics is in other subject areas. Compare college preparation for those subject areas to that for mathematics.

Construct collages showing mathematics - related careers.

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**RESOURCE MATERIALS**

Teachers

Newspapers  
Magazines

8-7-M

Suggested Student Outcome(s) for Unit I

Students will demonstrate their understanding of the importance of mathematics in our society with at least a 75% degree of accuracy as measured by teacher - determined evaluative criteria.

Suggested Evaluation Procedure(s) for Unit I

1. Observation of all students' activities
2. Discussion
3. Reports
4. Tests and quizzes
5. Student demonstrations



UNIT II - RATIONAL NUMBER SYSTEM (WHOLE NUMBERS)

EDUCATIONAL GOAL: To relate computational skills used in problematic solutions to daily life and the world of work.

- CONCEPTS:
- 1.) Education and work are interrelated.
  - 2.) Different kinds of work require varying degrees and types of educational preparation.
  - 3.) Basic education enhances job performance.

INFORMATIONAL OBJECTIVE: Students will discover that computational skills are needed in daily life and the world of work.

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STRATEGIES

Determine students' level of proficiency by administering a pre-test on the four basic operations of whole numbers. Relate the need for proficiency in the application of these basic operations to daily life and the world of work.

Engage an accountant to discuss the importance of computational skills in that occupation.

Discuss the properties of whole numbers and how these properties are used in mathematics related careers.

Interview a food store manager.

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RESOURCE MATERIALS

Teacher-made test

Accountant  
Paperback:

Your future in Accounting

Number Line Paperbacks:  
Opportunities in Economics  
Careers

Opportunities in Management  
Careers

Food Fair

8-9-M

**INFORMATIONAL OBJECTIVE:** Students will discover that computational skills are needed in daily life and the world of work.

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STRATEGIES

Operate a grocery store in the classroom.

View and discuss a film on banking.

Visit a local bank.

List the jobs in a bank that require a good understanding of mathematics.

Have students complete a family budget plan.

Have students write and perform a skit centered around budgeting family income. A suggested theme is "Family Dilemma".

Show how computational skills are used by teachers in other subject areas.

Show how computational skills are used by teachers in other subject areas.

Research technical occupations that require a mathematical background. Devise a list of the top 10 best paid workers from this research.

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RESOURCE MATERIALS

Film:  
Banks and Credit

First and Merchants  
Bank  
United Va. Bank

Paperback:  
Your Future In Banking

Careers Kit  
Occupational Outlook  
Handbook  
Encyclopedia of Careers  
and Voc. Guidance  
Career World

8-10-M

INFORMATIONAL OBJECTIVE: Students will discover that computational skills are needed in daily life and the world of work.

STRATEGIES

Have each student to compute the median salary for an assigned career and post the results on the board.

Send investigation teams to some of the businesses in the community to see how mathematics is used in these places.

Have students categorize a list of occupations according to the following criteria:

- Little mathematics needed
- Moderate knowledge of mathematics
- Extensive knowledge of mathematics

RESOURCE MATERIALS

Va. Electric and Power Co.  
C & P Telephone Co.  
Construction Site Service Station  
State Farm Insurance Co.

Paperbacks:  
Opportunities in Mathematics  
Opportunities in Food Preparation  
Opportunities in Carpentry Careers  
Opportunities in Office Occupations  
Opportunities in Pharmacy  
Opportunities in Land Architecture  
Opportunities in Veterinary Medicine

Use puzzles, games and exercises to illustrate the use of computational skills.

Puzzles  
Games

8-11-M

Suggested Student Outcome(s) for Unit II

1. Students will be able to show evidence of being aware of the importance of computational skills to daily living and employment.
2. Students will be able to list 10 occupations in each of the following categories:
  - a. require little mathematics,
  - b. require a moderate knowledge of mathematics and
  - c. require an extensive knowledge of mathematics.
3. Students will be able to budget income.

Suggested Evaluation Procedure(s) for Unit II

1. Observation
2. Discussion
3. Teacher-made tests and quizzes
4. Written and oral reports
5. Demonstration
6. Investigation

UNIT III - THE INTERRELATIONSHIP OF THE FRACTIONAL CONCEPTS (FRACTIONS, DECIMALS AND PER CENT)

EDUCATIONAL GOALS 1.) To develop a positive attitude toward work and preparation for work.

2.) To reinforce basic skills in mathematics through real-life experiences.

CONCEPTS:

1.) Basic education enhances job performance.

2.) Every career requires some special preparation.

3.) Work that is enjoyed by some is disliked by others.

4.) Job characteristics and individuals must be flexible in a changing society.

INFORMATIONAL  
OBJECTIVES:

1.) Students will recognize the influence of basic education on successful performance in various occupational areas.

2.) Students will identify ways in which basic mathematics is essential to businesses and consumers relative to selling and buying goods and services.

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STRATEGIES

View and discuss films and filmstrips on careers in which mathematics is applied.

Research the many applications of fractions, decimals and percent in a variety of occupational areas.

Have students pictorially illustrate the results of their research. Suggestions are graphs, collages and posters.

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RESOURCE  
MATERIALS

Resource Center

Occupational Outlook  
Handbook  
Finney's Occupational  
Guidance Kit

Career Activity  
Center

- INFORMATIONAL OBJECTIVES:**
- 1.) Students will recognize the influence of basic education on successful performance in various occupational areas.
  - 2.) Students will identify ways in which basic mathematics is essential to businesses and consumers relative to selling and buying goods and services.

**STRATEGIES**

Students will solve crossword puzzles which emphasize fractional concepts and careers.

Invite a panel of executives to discuss their education as related to their career experiences. Ask particularly about mathematics requirements. Tape the conversation for other classes.

Study the news media to discover how decimals and percent are used in advertisements to attract consumers.

Send an investigation team to a local department store to record the regular prices and sale prices of a list of commodities. Have students determine the exact percent of savings on each item.

Interview business managers about the procedures for determining sale and discount prices.

Interview an Internal Revenue Service agent.

**RESOURCE MATERIALS**

Crossword Puzzles

Bank Executive  
Real Estate Executive  
Insurance Executive  
Food Chain Executive  
Dept. Store Executive

Newspapers  
Magazines  
Radio  
Television

Sears  
J. M. Fields  
Thalhimer's

Nichols  
J. C. Penney  
Miller & Rhoades

Local Internal Revenue Service

- INFORMATIONAL OBJECTIVES:
- 1.) Students will recognize the influence of basic education on successful performance in various occupational areas.
  - 2.) Students will identify ways in which basic mathematics is essential to businesses and consumers relative to selling and buying goods and services.

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RESOURCE  
MATERIALS

STRATEGIES

View and discuss films.

Have students write and role play a skit centered around family budgeting. A suggested topic is "Domestic Delimma".

Films:

Decimals are Easy  
Percent in Everyday Life

Suggested Student Outcome(s) for Unit III

1. Students will be able to list 10 occupations which require an understanding of basic mathematics.
2. Students will be able to list and discuss 10 ways in which basic mathematics is essential to businesses and consumers.
3. Students will be able to work problems on decimals, fractions and percent with at least a 75% degree of proficiency.

Suggested Evaluation Procedures for Unit III

1. Observation
2. Research reports
3. Discussion
4. Teacher-made tests
5. Games and puzzles
6. Student projects



UNIT IV - MEASUREMENTS (ENGLISH AND METRIC)

EDUCATIONAL GOAL: To show how a knowledge of measurement in mathematics applies to personal and occupational needs.

- CONCEPTS:
- 1.) Many jobs require a knowledge of mathematics
  - 2.) Occupations and life styles are interrelated
  - 3.) Mathematics can influence certain job specializations.
  - 4.) Individuals are responsible for their career planning.

INFORMATIONAL OBJECTIVE: Students will identify personal and occupational areas in which a knowledge of measurement is essential.

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STRATEGIES

Research and discuss the importance of measurement in our everyday living.

Compare the metric system to the English system of measures.

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RESOURCE MATERIALS

Library  
News Media

Films:  
Measuring With the  
Number Line  
Metric System  
Let's Measure: Inches,  
Feet and Yards  
Let's Measure: Ounces,  
Pounds and Tons  
Let's Measure: Pints,  
Quarts and Gallons  
The World of  
Measurement

**INFORMATIONAL OBJECTIVE:** Students will identify personal and occupational areas in which a knowledge of measurement is essential.

**STRATEGIES**

Arrange a display of measuring instruments.

Make posters, charts and diagrams of metric measures of length and weight, metric and English unit equivalents.

View a filmstrip on scale drawing and discuss how scale drawing is used in many occupational areas.

Given a list of occupations, have students match the units of measurement in both the English and metric systems with the occupations in which the units of measurement most likely apply.

Discuss each listed occupation in terms of its desirability, benefits, scarcity, education and skill requirements.

Interview certain resource persons who use measurement in their occupations.

Plan an excursion to an industrial facility to see how the English and metric systems are used.

**RESOURCE MATERIALS**

Platform balance  
Weighing scales  
Ruler  
Yark stick  
Meter stick  
Thermometer  
  
Poste board  
Tag board

Filmstrip:  
General Math Series:  
Scale Drawing

Chart  
Bulletin Board

City surveyor,  
Accountant  
Service Station  
Attendant

Allied Chemical Co.,  
DuFont

8-18-M

**INFORMATIONAL OBJECTIVE:** Students will identify personal and occupational areas in which a knowledge of measurement is essential.

**STRATEGIES**

**RESOURCE MATERIALS**

Research the metric system as an international method of measurement.

International Metric System (chart)

Measure the classroom to determine how much carpeting would be needed.

Interview a carpet salesman.

Carpet salesman

Engage a consultant to discuss how a combination of measurements is necessary in the production of one finished product.

Consultant  
Brown & Williamson  
Pepsi Cola Bottling Co.

Plan to invite several people from the community to discuss how measurement is used in their careers.

Pharmacist,  
Engineer  
Photographer  
Military personnel  
Architect

Examine magazines and the want ads section of the newspaper for occupations that require skill in measurement.

Progress Index  
Richmond Times Dispatch  
Career World

The class will be divided into several investigative teams. Each team will visit a business to determine the role of measurement in production.

Midas Muffler  
Moore's Lumber Co.  
Brown & Williamson  
Tobacco Co.  
Food Fair  
Penney's  
Wickes Gas Co.  
Titmus Optical Co.

8-19-44

Suggested Student Outcome(s) for Unit IV

Given a list of ten occupations, students will match the occupations with the unit of measurement used in each.

Suggested Evaluation Procedure(s) for Unit IV

1. Observation
2. Reports (oral and written)
3. Tests
4. Quizzes

8-20-II

UNIT V - GEOMETRIC CONSTRUCTIONS AND FIGURES

EDUCATIONAL GOAL: To help students gain an awareness of the extensive use of geometric design in a technological society.

- CONCEPTS:
- 1.) Some workers produce goods; others produce services.
  - 2.) Education and work are interrelated.
  - 3.) Society is dependent upon the work of many people.

INFORMATIONAL OBJECTIVE:  
Students will demonstrate an awareness of the role of geometric design in the production and aesthetic appeal of goods, services and facilities.

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STRATEGIES

RESOURCE MATERIALS

Research and discuss the use of geometric figures in our society.	Library
Show how geometric figures and designs are used in architecture and construction. Display pictures of roads, bridges and buildings.	Pictures and drawings
Point out geometric designs found in the classroom.	
Engage an architect or a draftsman to discuss his occupation.	Draftsman Architect
Arrange a field trip to a construction site.	
Interview a fashion designer.	Fashion Designer <u>Your Future in Fashion Design</u>

**INFORMATIONAL OBJECTIVE:** Students will demonstrate an awareness of the role of geometric design in the production and aesthetic appeal of goods, services and facilities.

---

**STRATEGIES**

Discuss ways geometric designs are used in the following occupations:

Fashion designing

Patternmaking

Landscape architecture

Interior designing and decorating

Photography

Jewelry making

Industrial designing

Construct a model of a building (office building, service center, hospital, etc.)

---

**RESOURCE MATERIALS**

Career World

Encyclopedia of Careers and Vocational Guidance

Careers

Career Activity Center

Suggested Student Outcome(s) for Unit V

Students will be able to show evidence of being aware of the use of geometric design in a technological society by completing teacher-constructed evaluative criteria with at least a 75% degree of proficiency.

Suggested Evaluation Procedures for Unit V

1. Observation
2. Reports (written and oral)
3. Student projects
4. Tests and quizzes

## UNIT VI - FUNDAMENTALS OF ALGEBRA

### EDUCATIONAL GOAL:

To motivate students in the study of algebra by relating man's mastery of an ever-increasing body of mathematical knowledge to his ability to solve complex technological and scientific problems.

### CONCEPTS:

- 1.) Job characteristics and individuals must be flexible in a changing society.
- 2.) Occupations exist for a purpose.
- 3.) Many jobs require a knowledge of mathematics.
- 4.) Various groups and institutions influence the nature and structure of work.
- 5.) People work for various rewards and satisfactions.

### INFORMATIONAL OBJECTIVE:

Students will explore certain occupational areas in which algebra contributes to the development of feasible solutions to technical and scientific problems.

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### STRATEGIES

Discuss the characteristics of algebra. Compare these characteristics to those of other mathematics subjects.

Discuss the role of mathematics in solving traffic control problems.

Interview an industrial engineer to learn about the use of algebra in his occupation.

Engage an electrical engineer to discuss the relationship of mathematics to his occupation. Ask about the social and psychological factors inherent in this occupation.

---

### RESOURCE MATERIALS

Resource Center

Industrial Engineer

Electrical Engineer

8-24-M



**INFORMATIONAL OBJECTIVE:** Students will explore certain occupational areas in which algebra contributes to the development of feasible solutions to technical and scientific problems.

RESOURCE  
MATERIALS

STRATEGIES

Encyclopedia of Careers  
and Voc. Guidance  
Opportunities in an  
Architecture Career

Research the field of architecture to discover the nature of the work and the social and psychological factors inherent.

Architect

Interview an architect.

Petersburg General  
Hospital  
Medical College of Va.,  
Richmond, Va  
Your Future in Hospital  
Work

Visit a hospital or medical research laboratory to observe the work and the use of the fundamentals of algebra.

Lockheed Aircraft Corp.  
Bell Telephone Company  
Giannini Controls Corp.  
Mobil Oil Corporation  
E. J. Dupont DeNemours  
and Co.

Collect information from several industries on the relationship of mathematics to the nature of the work in each industry.

SRA Handbook of Job Facts  
Occupational Outlook  
Handbook

Discuss the work and educational requirements of a machinist.



**INFORMATIONAL OBJECTIVE:** Students will explore certain occupational areas in which algebra contributes to the development of feasible solutions to technical and scientific problems.

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STRATEGIES

Visit a machine shop.

Titmus Machine Shop  
Brown and Williamson Machine Shop

Film: Careers in Machine Trades

Plan a field trip to a planetarium. Have student construct a model planetarium.

Planetarium at Chapel Hill, N. C.  
Career Activity Center

Research and discuss the work of astronomers.

Film: Planets Around Our Sun

List some careers inherent in the field of space technology. Have each student select one career and prepare a paper giving the following information:

Occupational Outlook Handbook

Encyclopedia of Careers and Vocational Guidance

- Definition
- History
- Nature of work
- Requirements
- Employment outlook
- Earnings
- Conditions of work
- Social and psychological factors

**INFORMATIONAL OBJECTIVE:** Students will explore certain occupational areas in which algebra contributes to the development of feasible solutions to technical and scientific problems.

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RESOURCE  
MATERIALS

STRATEGIES

Have students solve simplified space technology problems.

Construct and display posters of careers that require a knowledge of algebra.

Career Activity Center  
Newspapers  
Magazines

8-27-M

Suggested Student Outcome(s) for Unit VI

1. Students will be able to list eight occupations which require a knowledge of algebra.
2. Students will be able to discuss the work and educational requirements of one occupation that requires a knowledge of algebra.

Suggested Evaluation Procedure(s) for Unit VI

1. Discussion
2. Observation
3. Test
4. Reports

Phase II - Career Orientation and Exploration

Grade 8

Social Studies

## INTRODUCTION

The program for eighth grade Social Studies is designed with the concept of the student being the center of the world around him. The student will be given various tasks and activities to acquaint him with himself and his immediate surroundings.

He will explore various occupational clusters on this level. This exploration is divided into seven units of organization conducive to the study of careers as well as Social Studies. The student will investigate occupations, how they vary during different periods and the influence of external forces on occupations such as war, etc. We hope to orient him with relevant career experiences that will make Social Studies more meaningful.

The seven major concepts are outlined in diagram form in varying degrees of complexity. The possibilities for the development of sub-concepts is endless. Each concept and subsequent sub-concepts represent a starting point for the exploration of occupations and Social Studies. We see the two as compatible and inseparable.

## EDUCATIONAL GOALS

1. Encouraging each child to become a democratic person whose behavior is guided by democratic values.
2. Acquiring and using functional information and basic understanding of home, neighborhood, state, nation and world; accepting responsibility; respecting the law; gaining confidence; and gaining skill in critical thinking and problem solving involving human relationships.
3. Using dependable sources of information; locating, evaluating, selecting, organizing and presenting information effectively; and basing action on sound conclusions.
4. Coping intelligently with change, in as much as change is inevitable and desirable in developing situations and participating effectively in bringing about new conditions for the improvement of living.
5. Developing an awareness that it is necessary for a citizen in a democracy to be literate and accurately informed.
6. Using mass media to build defenses against propaganda and ideologies contrary to democratic principles and, thereby, investigating all sides of a question before arriving at a decision.
7. Guiding each child to develop into a useful and well-adjusted citizen by participating in and improving community life and by achieving feelings of adequacy as a person and as an accepted member of the group.
8. Appreciating and respecting other persons' cultural similarities, differences and contributions to our way of living, realizing that human dignity and personality are of first importance in human relationships regardless of race, color or creed.
9. Acquiring and using practical information concerning such concepts as: production of goods and services, transportation, distribution, communication and conservation of natural resources.

EDUCATIONAL GOALS (cont.)

10. Understanding and appreciating the impact of: scientific advancement and education upon ways of living; the effect of family life, community living, and national and international welfare; and the increasing interdependence characteristic of Modern living.
11. Stimulating curiosity and providing information and motivation that will enable each individual to make intelligent career choices in the future - - choices that are compatible with one's interests and abilities as well as one's plans.
12. Developing the concept that "all men are created equal, and that each has the right to life, liberty and the pursuit of happiness."



## CONCEPTS

1. An understanding and acceptance of self is important throughout life.
2. Personality is an important factor in securing and holding a job.
3. Different careers require different abilities.
4. Individuals differ in their abilities, interests, attitudes and values.
5. Individuals are, to a great extent, responsible for success or failure in a chosen career.
6. Individuals learn to act as members of a group through the process of socialization.
7. A person builds character; he is not born with it. This is an important factor to success in any career.
8. The United States Constitution guarantees equal protection under the law (civil liberties and civil rights), yet many have never known equality.
9. Basically, all people have the same biological, psychological, political and cultural similarities.
10. Other minority groups have benefitted from the black man's struggle for equality.
11. There are several types of prejudice which may be expressed in many different ways.
12. Prejudice often leads to discrimination.
13. Persons need to be recognized as having dignity, worth, rights and responsibilities.
14. Students need to develop a perception of their abilities and interests as related to career requirements in the political world.
15. People work for different reasons--sometimes without pay (campaign manager).

CONCEPTS (cont.)

16. Interaction and interdependency are important necessities in achieving certain goals.
17. Occupational supply and demand has an impact on career planning.
18. Various groups and institutions influence the nature and structure of work.
19. Job characteristics and individuals must be flexible in a changing society.
20. Students need to understand economic potential as related to career clusters.
21. Occupations exist for a purpose.
22. Persons working on all levels in governmental careers should be worthy of respect in those relations between worker and employer.
23. Our form of government makes the individual assume the responsibility for planning his own future.
24. Governmental careers on a local, state or federal level are available on a merit basis regardless of individual status.
25. Interrelations in decision-making processes apply to government in the study of careers.
26. Through government, students are able to understand the characteristics of leadership.
27. Governmental environment and individual potential interact to influence career development.
28. Job specialization caused by assembly production is an example of interdependency resulting from technology.
29. Job characteristics and individuals must be able to adjust to the deletion and development of various occupations caused by technology and the knowledge explosion.
30. Work means different things to different people.

### UNIT OBJECTIVES

1. Students will be provided with the information and motivation that will enable them to make career choices compatible with their interests, abilities and plans for the future.
2. Students will be guided to develop an intelligent understanding and an acceptance that prejudice is acquired through experiences and environmental circumstances and may apply to almost anything or anyone.
3. Students will be guided to an understanding of the importance of elections in a democratic system.
4. Students will be presented with the total concept of war--the interrelatedness of basic causes, advances and results of most wars.
5. Students will be provided with the information necessary for gaining an understanding of the basis for and the development of government and how this has created the need for more financing and more jobs.
6. Students will be presented with the concept of democracy as a way of life and will be guided by its principles and values while appreciating the sacrifices and contributions made to promote democratic living in the United States.
7. Students will demonstrate an understanding and an appreciation of the impact that scientific advancement and technological change have had upon our way of life.

### INFORMATIONAL OBJECTIVES

1. Students will develop positive attitudes toward the world of work and will realize the worth and dignity in honest employment.
2. Students will demonstrate the realization that individuals are expected to become contributing members of society.
3. Students will develop the ability to recognize job situations in which they will best fit to contribute the most to society and to receive the greatest pleasure as well as the greatest monetary benefits.
4. Students will constantly examine themselves as individuals by analyzing, evaluating and assessing their abilities, interests and values. They will become their own best critic.
5. Students will demonstrate that a good personality is the key to success in the working world--that it enhances one's ability to get along with others in the world.
6. Student will determine educational requirements for becoming a qualified worker in the career of their choice.
7. Students will identify the various types of prejudices in real life situations.
8. Students will trace the origin of the various types of prejudice and chart the development.
9. Students will list the causes and consequences of prejudice and discrimination and will indicate the types of adjustments made by society.
10. Students will identify situations or give examples which show how other minority groups have benefited from the black man's fight for equal rights.
11. Having researched laws and court decisions that were designed to retard certain racial advancements, students will list, examine and evaluate these situations.
12. Students will examine and evaluate laws and court decisions that have brought great changes in American life.

### INFORMATIONAL OBJECTIVES (cont.)

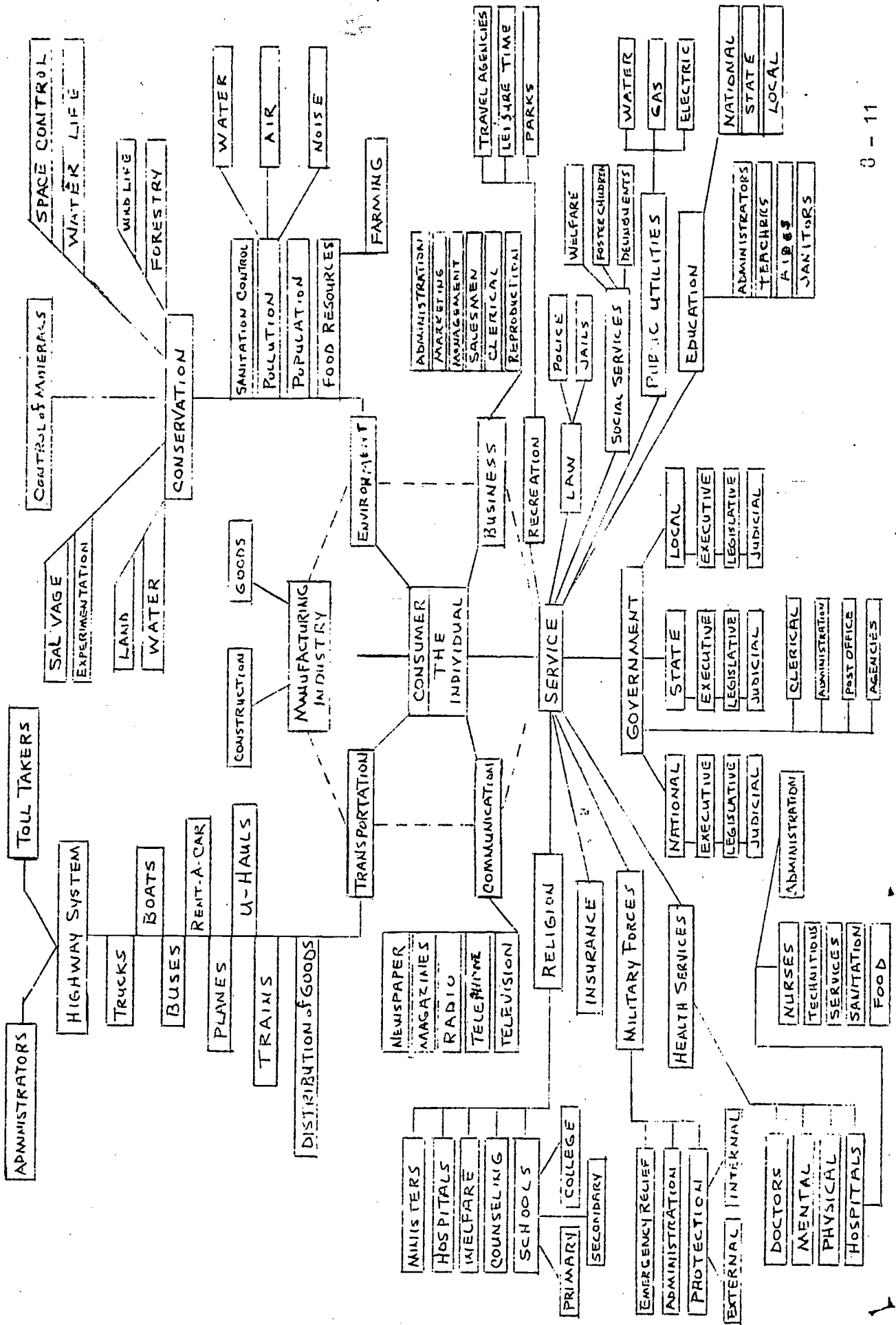
13. Students will distinguish between prejudice and discrimination.
14. Students will identify election vocabulary terms.
15. Students will list the qualifications for various political offices.
16. Students will learn how and why a campaign is organized.
17. Students will identify the people working in a campaign and the responsibilities of the various jobs.
18. Students will differentiate between elected positions, appointed ones and ones obtained on merit.
19. Students will identify the terminology needed to understand and discuss war.
20. Students will compare and contrast the differences between war and peace-time economies.
21. Students will compare and contrast the economic, social, political and psychological results of war.
22. Students will identify important events and persons connected with war.
23. Students will identify the technological improvements brought about by war.
24. Students will recognize and use certain terms relevant to government.
25. Students will make charts depicting the people who run our government.
26. Students will list benefits and careers related to those services performed by our government.
27. Students will identify the people who work in our local, state and federal governments and the various occupations involved.

INFORMATIONAL OBJECTIVES (cont.)

28. Students will compare our government with that of other nations.
29. Students will recognize that people form governments for enforcing laws and providing services they cannot provide for themselves.
30. Students will acquire and communicate the concepts inherent in "democracy."
31. Students will identify the basic features of a democracy.
32. Students will name and identify important personalities in history responsible for the development of democracy and will point out leadership characteristics as related to career development.
33. Students will list the responsibilities and rights of citizens in a democracy.
34. Students will list some of the changes that have taken place in our society as a result of specific events in the development of democracy.
35. Students will identify the problems of a democracy by citing ways a democracy can be improved.
36. Students will contrast the features of American democracy with other forms of contemporary government. (Monarchy, communism, etc.)
37. Students will use correctly certain terminology connected with technology. (Mass production, interchangeable parts, assembly line, power, energy, etc.)
38. Students will determine the advancement of technology in transportation and the various occupations this offers.
39. Students will show technological progress in communications and will identify the careers related to this field.

INFORMATIONAL OBJECTIVES (cont.)

40. Students will show a cause and effect relationship between technology and disease and will identify the health careers involved.
41. Students will compare and contrast the positive and negative aspects of technology.
42. Students will indicate the effects technology has produced on expansion in relation to space.
43. Students will cite the effects technology has had on expansion in relation to the oceans.
44. Students will indicate the effects technology has or has not had on their career choice. (e.g., supply and demand)





## UNIT I - THE INDIVIDUAL

### EDUCATIONAL GOALS:

Guiding each child to develop into a useful and well-adjusted citizen by participating in and improving community life and by achieving feelings of adequacy as a person and as an accepted member of the group.

Appreciating and respecting other persons' cultural similarities, differences and contributions to our way of living, realizing that human dignity and personality are of first importance in human relationships regardless of race, color or creed.

Stimulating curiosity and providing information and motivation that will enable each individual to make intelligent career choices in the future--choices that are compatible with one's interests and abilities as well as one's plans.

### CONCEPTS:

An understanding and acceptance of self is important throughout life.

Personality is an important factor in securing and holding a job.

Different careers require different abilities.

Individuals differ in their abilities, interests, attitudes and values.

Individuals are, to a great extent, responsible for success or failure in a chosen career.

Individuals learn to act as members of a group through the process of socialization.

A person builds character; he is not born with it. This is an important factor to success in any career.

### UNIT OBJECTIVE:

Students will be provided with the information and motivation that will enable them to make career choices compatible with their interests, abilities and plans for the future.

INFORMATIONAL  
OBJECTIVES:

Students will develop positive attitudes toward the world of work and will realize the worth and dignity in honest employment.

Students will demonstrate the realization that individuals are expected to become contributing members of society.

Students will develop the ability to recognize job situations in which they will best fit to contribute the most to society and to receive the greatest pleasure as well as the greatest monetary benefits.

Students will constantly examine themselves as individuals by analyzing, evaluating and assessing their abilities, interests and values. They will become their own best critic.

Students will demonstrate that a good personality is the key to success in the working world--that it enhances one's ability to get along with others in the world.

Students will determine educational requirements for becoming a qualified worker in the career of their choice.

UNIT OBJECTIVE: Students will be provided with the information and motivation that will enable them to make career choices compatible with their interests, abilities and plans for the future.

#### STRATEGIES

Students will view filmstrips depicting various aspects of human living as individuals relate to each other. They will become aware of "self" in an impersonal society and of their own attributes and short-comings.

Arrange a bulletin board displaying the various job clusters. Invoke a discussion to determine the extent of students' knowledge about various job opportunities.

Having determined by way of a checklist students' various interests and attitudes, form groups accordingly and set up "interest centers" with related materials (books, magazines, pictures, crafts, filmstrips, records, etc.).

Invite parents of students who are locally employed to discuss their jobs, benefits obtained from it, requirements for it, and how they, through their jobs, serve the community.

Students will create bulletin boards or large posters depicting people employing attitudinal, intellectual, or manual skills (people working with people, people working with machinery, people working with ideas).

#### RESOURCE MATERIALS

Tapes: Secrets,  
Filmstrip: Understanding  
Myself, Guidance Series  
Set #1, Filmstrip: To  
Have a Neighbor, Be a  
Neighbor, Guidance  
Series Set #2

Magazines and newspapers

Designed checklist to  
determine interests  
and attitudes

Parents and/or com-  
munity workers

Current magazines and  
newspapers

UNIT OBJECTIVE: Students will be provided with the information and motivation that will enable them to make a career choice compatible with their interests, abilities and plans for the future.

STRATEGIES

RESOURCE MATERIALS

Students will make picture charts depicting various interest areas and will list underneath the charts the abilities needed. Checking against these charts, students will identify their present abilities and those they may need to acquire in order to pursue their interest.

Current magazines and newspapers

Students will make two lists--1) persons and 2) things in their environment. Students will rank these according to their importance to them and then orally describe how they relate to their view of work.

Community resources

Having toured the telephone company, the students will discuss various job opportunities thinking in terms of their own abilities and skill to perform in these capacities.

Parents, company guide, company employee

Students will participate in a simulated game of role playing.

Game: Life Career

Having made a decision of a possible career choice, students will design a flow chart projecting their future plans.

Books, Job Experience Kit, - Exploring the World of Work

Students will write an autobiography reflecting upon their past experience.

**UNIT OBJECTIVE:** Students will be provided with the information and motivation that will enable them to make a career choice compatible with their interests, abilities and plans for the future.

STRATEGIES

RESOURCE  
MATERIALS

Personality plays a big part in a person's life. Will your personality help or hinder you in getting the job you want? In order that your teachers and counselors may be able to help you make decisions about your future, they must know as much as possible about you. Write a comprehensive autobiography on the form to be distributed. This information will be kept in the strictest confidence.

Book: Citizenship in Action.  
Painter & Bixler, Chapter 28  
Film: Are You Popular?  
World of Work Kit (NOW),  
Filmstrips: Job Attitudes: Liking Your Job and Your Life -  
Guidance Series Set #2

Write a theme which describes an incident in which you were involved and your contribution in a situation you believed helped someone else in some way.

Form buzz groups to discuss the following statements:

- (a) Persons should receive recognition for achievement.
- (b) A person's performance reflects his interests.
- (c) Grades should not be given to indicate student progress.

Students will develop a crossword puzzle using titles of jobs which have had the greatest effect upon their lives at any given time.

Dictionary of Occupational  
Titles

**UNIT OBJECTIVE:** Students will be provided with the information and motivation that will enable them to make a career choice compatible with their interests, abilities and plans for the future.

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**STRATEGIES**

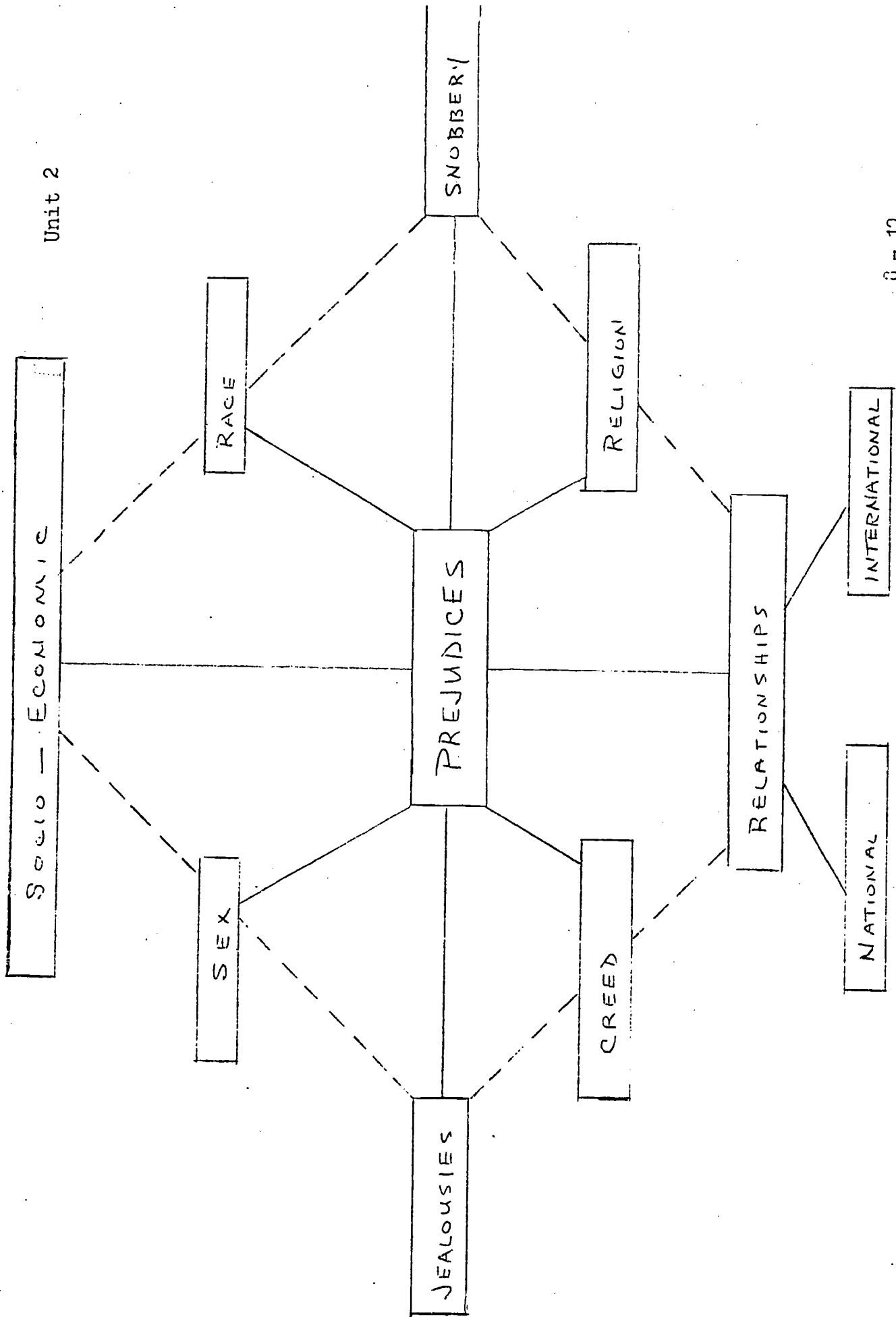
**RESOURCE  
MATERIALS**

With information made available at learning stations referring to the various career clusters, students will illustrate, by way of charts, the contributions and importance of these career areas to our society.

Learning centers

Suggested Student Outcomes for Unit I

1. Given a list of possible personal characteristics, students will identify those necessary in an individual for obtaining and keeping a job.
2. Given a list containing a wide range of career options, students will select the one or ones they might be best suited for and will give reasons for their decision(s).
3. Students will make a list of those qualities employers look for in a potential employee.
4. Students will criticize themselves and will suggest possible improvements which could be made in their personal characteristics.
5. Students will cite situations in which individuals were released from their job and will give reasons why the situations occurred.
6. Students will design a rating scale for determining those qualifications necessary in both obtaining and performing adequately on a job.





## UNIT II - PREJUDICE

### EDUCATIONAL GOALS:

Appreciating and respecting other persons' cultural similarities, differences and contributions to our way of living, realizing that human dignity and personality are of first importance in human relationships regardless of race, color or creed.

Using mass media to build defenses against propaganda and ideologies contrary to democratic principles and, thereby, investigating all sides of a question before arriving at a decision.

Developing the concept that "All men are created equal, and that each has the right to life, liberty and the pursuit of happiness."

Stimulating curiosity and providing information and motivation that will enable each individual to make intelligent career choices in the future--choices that are compatible with one's interests and abilities as well as one's plans.

### CONCEPTS:

The United States Constitution guarantees equal protection under the law (civil liberties and civil rights), yet many have never known equality.

Basically, all people have the same biological, psychological, political and cultural similarities.

Other minority groups have benefited from the black man's struggle for equality.

There are several types of prejudice which may be expressed in many different ways.

Prejudice often leads to discrimination.

**UNIT OBJECTIVE:**

Students will be guided to develop an intelligent understanding and an acceptance that prejudice is acquired through experiences and environmental circumstances and may apply to almost anything or anyone.

**INFORMATIONAL OBJECTIVES:**

Students will identify the various types of prejudices in real life situations.

Students will trace the origin of the various types of prejudice and chart the development.

Students will list the causes and consequences of prejudice and discrimination and will indicate the types of adjustments made by society.

Students will identify situations or give examples which show how other minority groups have benefited from the black man's fight for equal rights.

Having researched laws and court decisions that were designed to retard certain racial advancements, students will list, examine and evaluate these situations.

Students will examine and evaluate laws and court decisions that have brought great changes in American life.

Students will distinguish between prejudice and discrimination.

**UNIT OBJECTIVE:** Students will be guided to develop an intelligent understanding and an acceptance that prejudice is acquired through experiences and environmental circumstances and may apply to almost anything or anyone.

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**STRATEGIES**

Provide students with an activity sheet. Allow ten minutes for written reaction to its contents. Distribute an article entitled "Prejudice." Allow twenty minutes for silent reading. In oral discussion students will analyze their preconceived ideas.

Students will list prejudices or false impressions which they have had in the past about anything and which later they found to be wrong. Discuss.

Ask students to write a response to the following questions: What would I like to know about other races? Do popular nationality jokes cause prejudices? Why? Have you read about people who were enslaved other than black Americans? Discuss.

Students will bring in and display newspaper and magazine articles concerned with how societal groups express their prejudices.

**Project:** Do research on ways of living among people whose cultures differ from our own. Report results of research to class. Purpose of research: To develop a feeling of understanding and respect for all humans regardless of race, color or creed.

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**RESOURCE MATERIALS**

Book: The Mature of Prejudice.  
Gordon W. Allport

Book: Race and Races.  
Richard A. Goldsby

Current publications

Any social studies text, Fort Lee non-American personnel, VSC staff and students, current publications

UNIT OBJECTIVE: Students will be guided to develop an intelligent understanding and an acceptance that prejudice is acquired through experiences and environmental circumstances and may apply to almost anything or anyone.

STRATEGIES

RESOURCE  
MATERIALS

Write an account of your activities during a typical day. Tell what forces influenced your actions and to what extent. Determine whether your decision to act in a certain way was triggered by prejudice.

Imagine that you are traveling in another country and meet someone who dislikes the United States. He insists that our country is not a real democracy because it is prejudiced and discriminates against minority groups. Tell how you would handle this situation.

Explore hiring policies (not requirements for employment) for various jobs in local plants. Determine whether these policies are valid or discriminatory.

Have a panel discussion on the current busing issue. The question: Do you think that busing is motivated by prejudice?

Visit a local factory (preferably Brown-Williamson) to find out how local products (tobacco) are traded. Observe women employees from the point of the number employed and the positions held. Inquire about job opportunities and requirements for employment.

Plant employees,  
plant managers,  
plant supervisors

Mass media, interviews  
with school board members,  
principals and  
parents

Local plants, plant  
managers, supervisors  
and workers

**UNIT OBJECTIVE:** Students will be guided to develop an intelligent understanding and an acceptance that prejudice is acquired through experiences and environmental circumstances and may apply to almost anything or anyone.

STRATEGIES

RESOURCE MATERIALS

Conduct a "Self-examination" period. Encourage students to express their true feelings on such topics as: Hair styles, Dress codes, Eighteen year-old voting, Desegregation (in a broad sense) and Inter-marriage. They can suggest others. Ask if these attitudes are motivated by prejudice.

Conduct a survey among students and faculty. Find out how many (percentage) are sympathetic with the idea of a woman (regardless of race) for President of the United States or a black man for the same office. Report to class.

Research the Women's Liberation Movement. What is the philosophy behind it?

Role play city dwellers and farmers depicting rural living and urban living in colonial times and the present. For both time periods, discuss the societal attitudes favoring one life style over the other.

Invite a social worker to class. Ask her to discuss with the class her role as a service person to the underprivileged in the community. Find out the requirements and benefits of her job and whether the people whom she serves are generally stigmatized by the community. If so, why?

Students

Students-faculty interviews with selected persons

Books: Women in the U.S., Women Employment, Women and Social and Moral Questions, Current literature

Current literature

Social Worker

**UNIT OBJECTIVE:** Students will be guided to develop an intelligent understanding and an acceptance that prejudice is acquired through experiences and environmental circumstances and may apply to almost anything or anyone.

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**STRATEGIES**

Invite a representative from a local employment agency. Request statistics on employment. Formulate an "information desired" questionnaire concerning the kinds of jobs for which they have greatest requests, the percentage of clientele (race and sex), skills and abilities required in performing such jobs as might be named.

Have a class discussion with a student designated as moderator. The statement: Migratory workers in our western states will always face the problems they now face. Bring out reasons for this kind of life and the attitude of the general public toward these people.

Make a graph to bring out the following differences between whites and non-whites: life expectancy, average family income, school years completed with reference to the years 1940, 1965, 1970 and 1972.

Interview or invite to class a female doctor, lawyer and politician. Find out why they chose their careers and some of the difficulties they encountered in preparation and also the disadvantages they presently experience.

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**RESOURCE  
MATERIALS**

Employment agency  
representative

Book: World Almanac

**UNIT OBJECTIVE:** Students will be guided to develop an intelligent understanding and an acceptance that prejudice is acquired through experiences and environmental circumstances and may apply to almost anything or anyone.

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**STRATEGIES**

Pretend that you are a famous Negro in the past. Relate to the class what you consider to be the high points of: your career, your struggles for identity in whatever career you chose, your achievements or contributions made to society and the obstacles you had to overcome in the process.

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**RESOURCE  
MATERIALS**

Books: The Negro in America,  
Negroes in our History,  
Negroes of Achievement  
Filmstrips: Image Makers Series - Jackie Robinson, Martin Luther King

Suggested Student Outcomes for Unit II

1. Students will identify those sources in their environment from which prejudices are acquired.
2. Students will identify several types of prejudices in real life and will also identify the means by which they are expressed.
3. Students will trace the origin of various prejudices and will chart their development.
4. Students will distinguish between prejudice and discrimination by giving examples.
5. Students will demonstrate their acceptance of all persons as human beings regardless of ethnic, cultural or economic backgrounds.
6. Students will list the causes and consequences of prejudice and discrimination and will indicate the types of adjustments made by society.
7. Students will identify and give examples of situations which show how other minority groups have benefited from the black man's fight for equal rights.
8. Students will identify laws and court decisions that have brought great changes in American life.





### UNIT III - ELECTIONS

#### EDUCATIONAL GOAL:

Developing an awareness that it is necessary for a citizen in a democracy to be literate and accurately informed.

#### CONCEPTS:

Persons need to be recognized as having dignity, worth, rights and responsibilities.

Students need to develop a perception of their abilities and interests as related to career requirements in the political world.

People work for different reasons--sometimes without pay (campaign manager).

Interaction and interdependency are important necessities in achieving certain goals.

#### UNIT OBJECTIVE:

Students will be guided to an understanding of the importance of elections in a democratic system.

#### INFORMATIONAL OBJECTIVES:

Students will identify election vocabulary terms.

Students will list the qualifications for various political offices.

Students will learn how and why a campaign is organized.

Students will identify the people working in a campaign and the responsibilities of the various jobs.

Students will differentiate between elected positions, appointed ones and ones obtained on merit.

UNIT OBJECTIVE: Students will be guided to an understanding of the importance of elections in a democratic system.

STRATEGIES

Develop a work sheet to acquaint the student with the vocabulary used in and around elections.

Make a scrapbook concerning the forthcoming election.

Construct a master chart in the room to keep everyone aware of the progress of the candidates.

Write an essay: "If I were elected President, I would . . ." Have the other students decide if the ideas put forth are realistic enough to be put into effect.

Play the game "Election U.S.A."

Run a mock election in the room allowing the students to campaign and take various roles involved in a campaign such as campaign manager, publicity chairman, etc. and come up with a Class President.

Have a class discussion: "The people who make the candidate."

Report on political parties. Discuss their social, political and economic aspects.

Have a class discussion: "The importance of Elections in a Democracy."

RESOURCE MATERIALS

Book: Free and the Brave, Junior Scholastic Magazines

Newspapers, magazines

Newspapers, magazines

Magazines, newspapers, news programs

Game: "Election U.S.A."

Current publications, teacher, other media

Teacher, current publications

Book: Free and the Brave, Encyclopedias

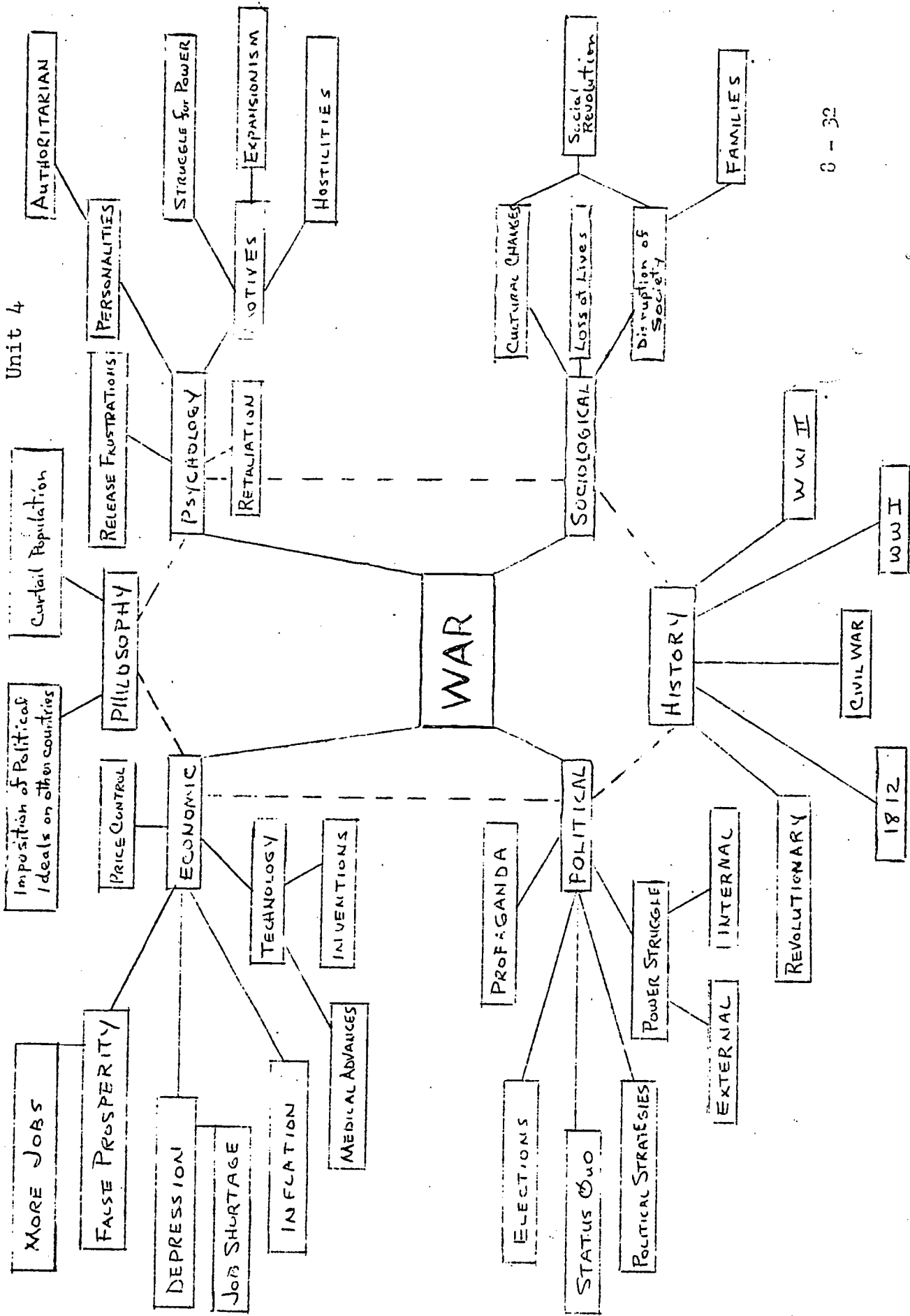
Teacher, Book:

Free and the Brave, Game: "Election U.S.A."

Suggested Student Outcomes for Unit III

1. Students will defend the importance of elections in a democratic society.
2. Students will list and classify the various career opportunities in the political arena.
3. Students will describe the requirements for obtaining and holding a prescribed list of political positions.
4. Students will help organize and participate in campaigns for the election of school and local representatives.
5. Students will tell the difference between elected positions, appointed ones and ones obtained by merit.
6. Students will list the qualifications for various political offices.
7. Students will identify persons working in a campaign and will list the duties assigned to each position.
8. Students will trace the historical development of elections in our country.
9. Students will explain why respect and confidence are necessary character traits for elected officials.
10. Using available information, students will predict the winning candidate in a given local, state or national election.

Unit 4



UNIT IV - WAR

EDUCATIONAL GOALS:

Coping intelligently with change, in as much as change is inevitable and desirable in developing situations and participating effectively in bringing about new conditions for the improvement of living.

Using mass media to build defenses against propaganda and ideologies contrary to democratic principles and, thereby, investigating all sides of a question before arriving at a decision.

Stimulating curiosity and providing information and motivation that will enable each individual to make intelligent career choices in the future--choices that are compatible with one's interests and abilities as well as one's plans.

CONCEPTS:

Occupational supply and demand has an impact on career planning in our technological society.

Various groups and institutions influence the nature and structure of work.

Job characteristics and individuals must be flexible in a changing society.

Students need to understand economic potential as related to career clusters.

Occupations exist for a purpose.

UNIT OBJECTIVE:

Students will be presented with the total concept of war--the inter-relatedness of basic causes, advances and results of most wars.

INFORMATIONAL OBJECTIVES:

Students will identify the terminology needed to understand and discuss war.

Students will compare and contrast the differences between war and peace-time economies.

INFORMATIONAL  
OBJECTIVES:

Students will compare and contrast the economic, social, political and psychological results of war.

Students will identify important events and persons connected with war.

Students will identify the technological improvements brought about by war.

UNIT OBJECTIVE: Students will be presented with the total concept of war--the inter-relatedness of basic causes, advances and results of most wars.

STRATEGIES

Develop a worksheet to acquaint the students with the vocabulary of war (depression, inflation, reparations, etc.).

Play a game.

Study the master chart in the room showing the similarities in the economic, social, political and psychological variations caused by war.

Play a game.

Students will write an essay in which they compare and contrast their personal qualities with those of well-known leaders.

Compare and contrast well-known men and women in different wars in terms of their leadership abilities.

Draw cartoons depicting the various jobs found in war.

Make collages depicting some of the effects of wars (social, personal, economic, political, psychological, etc.).

RESOURCE  
MATERIALS

Book: Free and the Brave, teacher, current publications, encyclopedia

Game: "Mission: Simulation of Our Involvement in Vietnam"

Teacher, Book: Free and the Brave, current publications, encyclopedia

Game: "Propaganda"  
Encyclopedia, teacher, library

Biographies, autobiographies

Book: Free and the Brave, current publications

Historical pamphlets, current publications



**UNIT OR TOPIC:** Students will be presented with the total concept of war--the inter-relatedness of basic causes, advances and results of most wars.

**STRATEGIES**

Make a chart tracing the increase in casualties and expenditures in wars from the Revolutionary War to Vietnam.

Play a game -- "Who Am I?"

Have a class discussion: The differences technological advancements have brought to war and have developed as a result of war.

Write an essay: "Why the Economy is Different During Wartime."

Make a chart showing the fluctuation of employment in conjunction with different wars.

Invite a military person to discuss his or her role in the army.

Take a field trip to a T.V. station to emphasize the role of media in forming public opinion, especially during wartime.

Make a chart pointing out the good and bad aspects of war.

**RESOURCE MATERIALS**

Basic books on U.S. history, current publications

Teacher, Book: Free and the Brave, Current publications

Teacher, current publications, encyclopedia.

Teacher, encyclopedia.

Encyclopedia, current & historical publications

Resource person

Teacher, T.V. station, current publications

History text, encyclopedia, current publications

UNIT OBJECTIVE: Students will be presented with the total concept of war--the inter-relatedness of basic causes, advances and results of most wars.

STRATEGIES

Invite a panel of three military persons who have fought in various wars to help point out similarities and differences in jobs.

Have a panel discussion: "Wartime Economy as Opposed to Peacetime Economy."

Take a field trip to Fort Lee Museum.

Write a research paper: "Careers in the Military Services."

RESOURCE MATERIALS

Resource people, encyclopedia

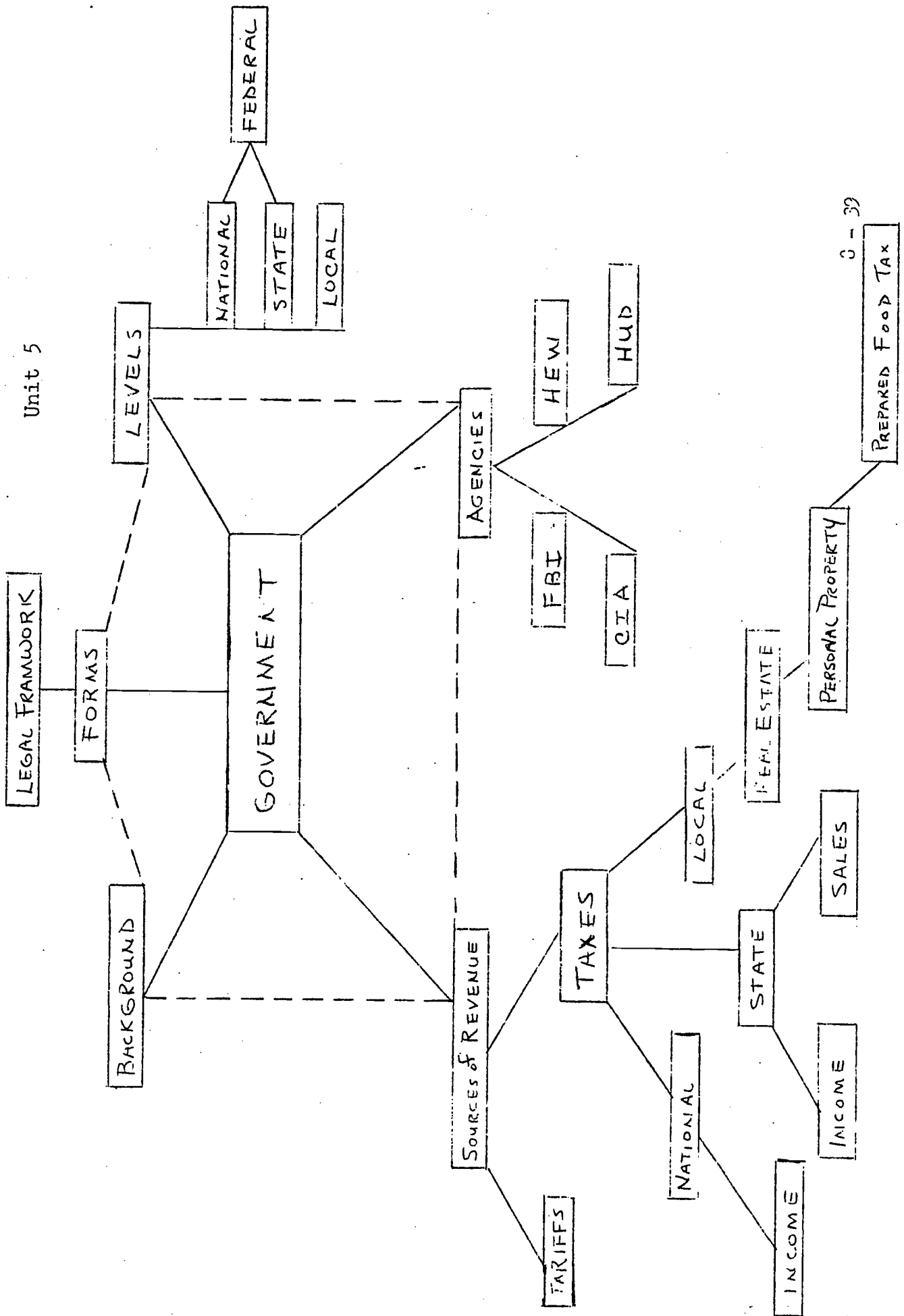
Current publications, history text

Current publications: recruiting officer from one of the armed forces

Suggested Student Outcomes for Unit IV

1. Students will relate the availability of the wide range of career opportunities in the armed services. They will indicate how these careers may be obtained and the benefits which may be derived from them.
2. Students will demonstrate their ability in decision making, critical thinking and analysis when confronted with hypothetical problems both in and outside of school.
3. Students will point out the social and psychological effects of war on the economic and political life of nations and the world.
4. Students will describe the social and psychological interaction of individuals, society and the world during a war period.
5. Students will supply evidence indicating the effect of war upon technological advancements.
6. Students will describe the importance of responsible leadership.
7. Students will provide information to support the theory that "the end result of war is inflation and depression" and that this situation gives rise to new careers.

Unit 5



8 - 39

## UNIT V - GOVERNMENT

### EDUCATIONAL GOALS:

Acquiring and using functional information and basic understanding of home, neighborhood, state, nation and world; accepting responsibility; respecting the law; gaining confidence; and gaining skill in critical thinking and problem-solving involving human relationships.

Stimulating curiosity and providing information and motivation that will enable each individual to make intelligent career choices in the future--- choices that are compatible with one's interests and abilities as well as one's plans.

### CONCEPTS:

Persons working on all levels in governmental careers should be worthy of respect in those relations between worker and employer.

Our form of government makes the individual assume the responsibility for planning his own future.

Governmental careers on a local, state or federal level are available on a merit basis regardless of individual status.

Interrelations in decision-making processes apply to government in the study of careers.

Through government, students are able to understand the characteristics of leadership.

### UNIT OBJECTIVE:

Students will be provided with the information necessary for gaining an understanding of the basis for and the development of government and how this has created the need for more financing and more jobs.

### INFORMATIONAL OBJECTIVES:

Students will recognize and use certain terms relevant to government.

Students will make charts depicting the people who run our government.

Students will list benefits and careers related to those services performed by our government.

**INFORMATIONAL  
OBJECTIVES:**

Students will identify the people who work in our local, state and federal governments and the various occupations involved.

Students will compare our government with that of other nations.

Students will recognize that people form governments for enforcing laws and providing services they cannot provide for themselves.

**UNIT OBJECTIVE:** Students will be provided with the information necessary for gaining an understanding of the basis for and the development of government and how this has created the need for more financing and more jobs.

STRATEGIES

Develop worksheets dealing with the vocabulary needed to understand the concept of "government."

Have students prepare reports on the differences and similarities among city, state, and national government careers.

Make a collage composed of current and past issues of various occupations which are available in government. Arrange a bulletin board to show the various services rendered by local governments.

Draw cartoons: (a) tracing some of the contributions that men and movements have made to government, (b) political cartoons, depicting present men and/or issues.

Take a field trip to a clerk's office to investigate some duties in relation to the overall picture of government.

Take a field trip to the General Assembly to see a branch of the State government in action.

Invite in a speaker from the executive branch of government on either the state or local level.

RESOURCE MATERIALS

Books: Free and the Brave, American Government, Junior Scholastic Magazine

Book: Free and the Brave, Filmstrip: Federal Government

Newspapers, magazines

Teacher

Books: Free and the Brave, American Government, newspapers, magazines

Clerk's office

State Capitol

Resource person from executive branch

**UNIT OBJECTIVE:** Students will be provided with the information necessary for gaining an understanding of the basis for and the development of government and how this has created the need for more financing and more jobs.

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**STRATEGIES**

Take a field trip to a courthouse to see the judicial branch in action.

A policeman comes to your door, arrests you and takes you to headquarters and locks you up without a word. What are your rights?

Show slides. B 17-B44

Show filmstrips.

Write an essay: "Is it Possible For People to Live Without Government?"

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**RESOURCE MATERIALS**

Court House

Bill of Rights

Carousel slides: Federal System, Division of Powers, Constitution

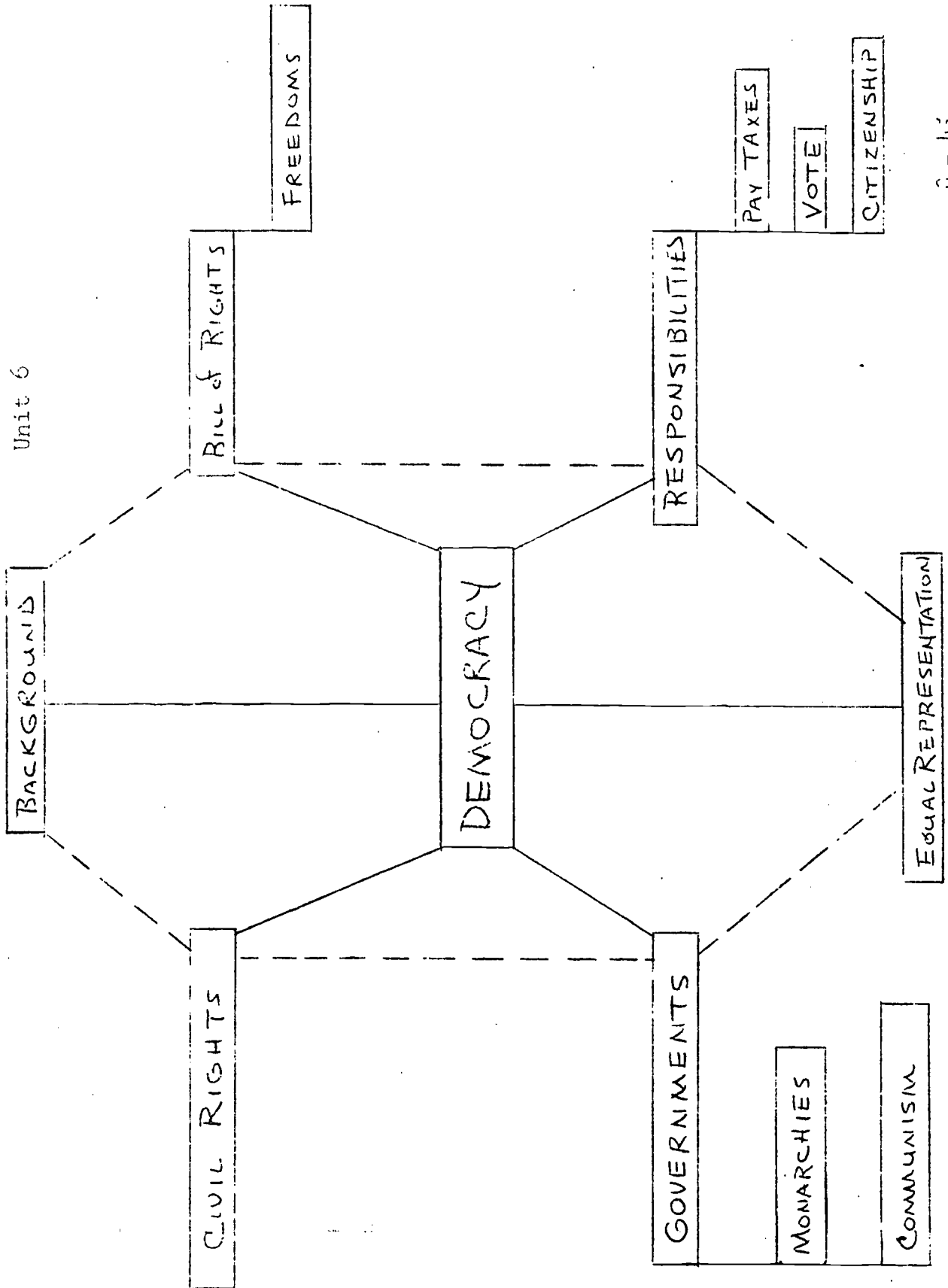
Filmstrips: Federal Government Series, Constitution of the U.S. Series, Communism: What You Should Know About It and Why



Suggested Student Outcomes for Unit V

1. Students will identify a wide variety of careers in government, will relate the requirements and preparation for a specified job, and will describe the duties performed and the benefits derived from such employment.
2. Students will name and describe the functions of the three branches of our government and will show the interrelationship of job activities in each branch.
3. Students will identify the many services rendered by the government.
4. Students will discuss current events in government and will correctly use designated governmental terms.
5. Students will list key persons in government and will identify the job(s) which they perform.
6. Students will indicate the similarities in structure and function of local, state and federal government.
7. Students will compare the structure and function of our government with that of other nations in the world.
8. Students will briefly state the historical background of our government.

Unit 6



## UNIT VI - DEMOCRACY

- EDUCATIONAL GOALS:** Encouraging each child to become a democratic person whose behavior is guided by democratic values.
- Using dependable sources of information; locating, evaluating, selecting, organizing and presenting information effectively; and basing action on sound conclusions.
- Guiding each child to develop into a useful and well-adjusted citizen by participating in and improving community life and by achieving feelings of adequacy as a person and as an accepted member of the group.
- Stimulating curiosity and providing information and motivation that will enable each individual to make intelligent career choices in the future-- choices that are compatible with one's interests and abilities as well as one's plans.
- CONCEPTS:** An understanding and acceptance of self is important throughout life.
- Persons need to be recognized as having dignity, worth, rights and responsibilities.
- Individuals differ in their abilities, interests, attitudes and values.
- Governmental environment and individual potential interact to influence career development.
- UNIT OBJECTIVE:** Students will be presented with the concept of democracy as a way of life and will be guided by its principles and values while appreciating the sacrifices and contributions made to promote democratic living in the United States.

INFORMATIONAL  
OBJECTIVES:

Students will use correctly the word "democracy" so as to be able to intelligently communicate basic concepts.

Students will identify the basic features of a democracy.

Students will name and identify important personalities in history responsible for the development of democracy and will point out leadership characteristics as related to career development.

Students will list the responsibilities and rights of citizens in a democracy.

Students will list some of the changes that have taken place in our society as a result of specific events in the development of democracy.

Students will identify the problems of a democracy by citing ways a democracy can be improved.

Students will contrast the features of American democracy with other forms of contemporary government. (Monarchy, Communism, etc.)

**UNIT OBJECTIVE:** Students will be presented with the concept of democracy as a way of life and will be guided by its principles and values while appreciating the sacrifices and contributions made to promote democratic living in the United States.

**STRATEGIES**

Write an essay on economic freedom in the U.S.

Write a biography on one American whom you think has contributed the most to the development of democracy through his contribution in the career world. Be prepared to defend your selection.

Have students list the characteristics of a good citizen in a democracy. Discuss how technology has made it easier for a person to be a good citizen.

Play a game.

Debate a current question concerning democracy and careers. Example: Watergate.

Practice democracy in the classroom in class activities.

Write an account of an activity observed at school or elsewhere. Indicate whether the action involved supports or violates the principles of democracy.

**RESOURCE  
MATERIALS**

Book: Any basic American History text, encyclopedia

Filmstrips: Founders of American History Series, Books: Who's Who, any basic American History text, biographies

Book: Any basic American History text

Encyclopedia,  
Game: "Democracy"

Newspapers, magazines,  
current publications

**UNIT OBJECTIVE:** Students will be presented with the concept of democracy as a way of life and will be guided by its principles and values while appreciating the sacrifices and contributions made to promote democratic living in the United States.

**STRATEGIES**

Make a list of the various occupations in and around the school. Investigate each to determine if it operates on a democratic basis.

Discuss the entry of women into such occupations as jockeys, engineers, and mail carriers, stating the law which says there can be no discrimination because of sex.

Role play a situation of working men. One student could represent a factory owner, another a worker and another a union organizer.

Invite a recent immigrant to the class to tell about his group's culture, about its contributions to American life and about its life in the United States.

Promote school or community improvement through voluntary student action.

**RESOURCE MATERIALS**

Current publications,  
resource person

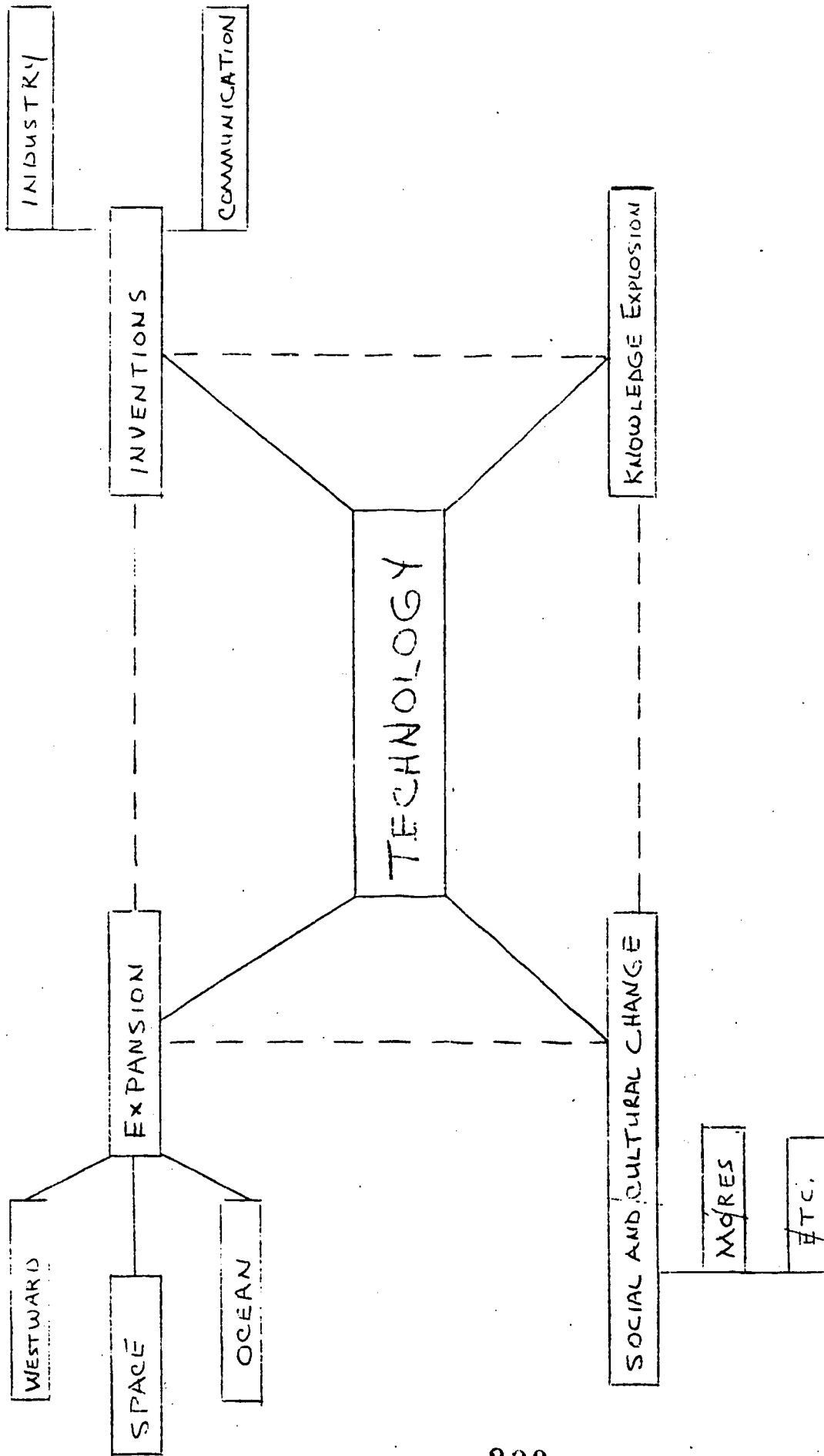
Library

Resource person from  
the community

Suggested Student Outcomes for Unit VI

1. Students will define the word "democracy" and will cite examples of democracy at work in American society.
2. Students will name other countries that have a democratic system of government and will indicate the similarities and differences between the structure of those governments and ours.
3. Students will list some of the changes that have taken place in American society as a result of the functions of a democratic system of government.
4. Students will demonstrate democratic principles as they interact in the classroom, at home and in the community.
5. Students will identify the basic features of a democratic form of government.
6. Students will identify and communicate the basic concepts of democracy.
7. Students will name and identify important historical personalities responsible for the development of our democratic system and will point out the leadership characteristic as a prerequisite for success in a chosen career.
8. Students will list the responsibilities and rights of citizens in a democracy.
9. Students will identify some of the problems of a democratic system and will suggest ways the system can be improved.
10. Students will compare and contrast features of American democracy with other forms of contemporary government (monarchy, communism, etc.).

Unit 7





## UNIT VII - TECHNOLOGY

**EDUCATIONAL GOALS:** Coping intelligently with change, in as much as change is inevitable and desirable in developing situations and participating effectively in bringing about new conditions for the improvement of living.

Acquiring and using practical information concerning such concepts as: production of goods and services, transportation, distribution, communication and conservation of natural resources.

Understanding and appreciating the impact of: scientific advancement and education upon ways of living; the effect of moral and spiritual values upon human behavior; ways to improve family life, community living, and national and international welfare; and the increasing interdependence characteristic of modern living.

Stimulating curiosity and providing information and motivation that will enable each individual to make intelligent career choices in the future-- choices that are compatible with one's interests and abilities as well as one's plans.

**CONCEPTS:** Occupational supply and demand has an impact on career planning in our technological society.

Job specialization caused by assembly production is an example of interdependency resulting from technology.

Job characteristics and individuals must be able to adjust to the deletion and development of various occupations caused by technology and the knowledge explosion.

Work means different things to different people.

**UNIT OBJECTIVES:** Students will demonstrate an understanding and an appreciation of the impact that scientific advancement and technological change have had upon our way of life.

INFORMATIONAL  
OBJECTIVES:

Students will use correctly certain terminology connected with technology. (mass production, interchangeable parts, assembly line, power, energy, etc.)

Students will determine the advancement of technology in transportation and the various occupations this offers.

Students will show technological progress in communications and will identify the careers related to this field.

Students will show a cause and effect relationship between technology and disease and will identify the health careers involved.

Students will compare and contrast the positive and negative aspects of technology.

Students will indicate the effects technology has produced on expansion in relation to space.

Students will cite the effects technology has had on expansion in relation to the oceans.

Students will indicate the effects technology has or has not had on their career choice (e.g., supply and demand).

**UNIT OBJECTIVE:** Students will demonstrate an understanding and an appreciation of the impact that scientific advancement and technological change have had upon our way of life.

**STR TOPICS**

**RESOURCE MATERIALS**

Plan a trip to a local factory. Arrange to see the production of one item from raw material to finished product. Ask a representative to tell about conditions in the factory. Compare what you saw and what you read about working conditions.

Plan a field trip to the Norfolk Naval Base. Arrange a tour of a modern, present-day passenger ship and a battleship.

Report on: Henry Ford, Eli Whitney, Alexander Bell, Thomas Edison, Andrew Carnegie and John D. Rockefeller.

Research and prepare a large chart which indicates the technology that has developed since World War II in areas such as transportation, communication, industry and medicine.

Collect and display models which show technological advances in transportation (e.g. automobiles, trains, airplanes, etc.).

Observe the home environment. Make a list of homemaking conveniences which are in use today. Discuss with parents how these new ideas in technology conserve time and energy.

Select two new advances in technology. Arrange a bulletin board display indicating the various kinds of jobs involved. Assign students to find out the kinds of skills and abilities necessary to work successfully in each area.

Book: Free and the Brave, local factory, factory representative

Public transportation vehicle, ship guide

Book: Free and the Brave, library

Library

Community

Parents and home environment

Newspapers, magazines, pamphlets, industrial workers

UNIT OBJECTIVE: Students will demonstrate an understanding and an appreciation of the impact that scientific advancement and technological change have had upon our way of life.

STRATEGIES

RESOURCES  
MATERIALS

Visit three major local industries. Find out how many persons they employ and how many of their employees live outside of the city.

Local industry  
plant manager

Invite several parents working on different jobs to the class to discuss their occupations.

Parents

Play the "Who Am I" game on famous pioneers of industry.

Book: Free and the Brave, encyclopedia,  
Game: "Who Am I?"

Take specific field trips to the four areas of technology emphasized in our unit: Communication, Transportation, Industry and Medicine.

T.V. station, airport,  
hospital

Automobiles, televisions, and radios are factors that have greatly changed American life. Draw a graph showing the rise in the production and consumption of them.

Book: World Almanac

Compare and contrast the development of industry in the U.S. and in other nations.

Book: World Almanac,  
Library

Write a paper: "What Life Would be Like Without Modern Conveniences."

Have a demonstration of the positive and negative aspects of the effect technology has had upon ecology. (Charts, field trips, discussion and research, essays.)

Filmstrips, library

Suggested Student Outcomes for Unit VII

1. Students will relate the numerous ways by which our lives are influenced by technology.
2. Students will trace the historical development of technological advancement in American society.
3. Students will compare and contrast the positive and negative effects of technology upon our lives.
4. Students will select one phase or aspect of technology (transportation, communication, etc.), trace the stages in its development and indicate how it has changed the way we live.
5. Students will indicate how advancing technology affects one's career choice or choices.
6. Students will explain the effects of technology on supply and demand.
7. Students will describe the processes involved in mass production.
8. Students will indicate the influence advanced technology has had and is having upon the creation of new jobs. Students will list several such new jobs found in the community.
9. From a selection of diversified careers in technology, students will make a chart indicating the following: duties performed, salary range, preparation necessary, demand for and benefits derived from participation in each career selected.

## EVALUATION

1. Observe the extent to which each pupil displays:
  - a. democratic involvement in group and committee work and discussions
  - b. interest in community
  - c. acceptance and understanding of other races and ethnic groups
  - d. effective use of new vocabulary
  - e. awareness of the world of work
  - f. attentiveness and interaction with resource persons
  - g. changes in attitudes and behavior toward themselves, others and the world of work
2. Administration of tests
  - a. pre-test and post-test
  - b. oral and written test - objective and essay
3. Evaluation by students
  - a. self
  - b. unit

Phase II - Career Orientation and Exploration  
Grade 9  
Earth Science

## INTRODUCTION

The present ninth grade Earth Science program is divided into two categories, academic and general. Those students wanting to continue their education on the collegiate level choose the academic course of instruction. Those students not wanting to continue their education on the collegiate level or undecided as to their overall goals may choose the general course of instruction.

During the 1973-74 school year, it is our intention to implement career education into the existing Earth Science curriculum. Through this program, it is hoped that the student will be learning Earth Science concepts while gaining awareness and knowledge of the tremendous variety of occupations available to him. Hopefully, the student will not be disillusioned by the complexity of science but will be intrigued by its exciting and challenging applications "now and forevermore."



## EDUCATIONAL GOALS

1. To demonstrate to the student the practical applications of scientific knowledge.
2. To relate the practical applications of scientific knowledge to career opportunities.
3. To show the necessity of using other disciplines in the communication and application of scientific knowledge.
4. To illustrate the applications of scientific knowledge to leisure time activities.
5. To show how leisure time activities can lead to career opportunities.
6. To help students recognize their abilities and set realistic occupational goals.
7. To help students realize the personal satisfaction that can be gained through knowledge.

## CONCEPTS

1. An understanding and acceptance of self is important throughout life.
2. Persons need to be recognized as having dignity and worth.
3. Occupations exist for a purpose.
4. There is a wide variety of careers which may be classified in several ways.
5. Work means different things to different people.
6. Education and work are interrelated.
7. Individuals differ in their interests, abilities, attitudes and values.
8. Occupational supply and demand has an impact on career planning.
9. Job specialization creates interdependency.
10. Environment and individual potential interact to influence career development.
11. Occupations and life styles are interrelated.
12. Individuals can learn to perform adequately in a variety of occupations.
13. Career development requires a continuous and sequential series of choices.
14. Various groups and institutions influence the nature and structure of work.
15. Individuals are responsible for their career planning.
16. Job characteristics and individuals must be flexible in a changing society.

### INFORMATIONAL OBJECTIVES

1. The student will assess his abilities, knowledge, special skills and interests in reference to the occupational areas presented.
2. The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.
3. In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.
4. The student will classify the careers presented according to his abilities, skills, interests and goals.
5. The student will value the merits in his classmates' analysis of work.
6. In developing his career goals the student will identify occupations by the education that is necessary to perform them effectively.
7. The student will identify the differing interests, abilities, attitudes and values of his classmates.
8. The student will review the fluctuating job market and the need for considering this factor in job evaluation.
9. As the student explores one occupational area, he will examine the support given to and taken from other occupational areas.
10. The student will analyze the role of environment in career outcome and investigate the influence of potential on career planning.
11. In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.
12. The student will relate his own abilities to the performance of a variety of careers.

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13. The student will relate knowledge of a variety of occupations in science which, along with careers in other disciplines, will provide a basis for the series of choices necessary in finding a career.
14. The student will appraise the role played by governmental agencies and corporations in designating work trends.
15. The student will recognize that even though career development gives direction for finding an occupation, he alone is responsible for making his final career plans.
16. The student will relate why change will occur and why he must remain flexible in working toward his career goals.

## UNIT I -- INTRODUCTION

### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To show the necessity of using other disciplines in the communication and application of scientific knowledge.

### CONCEPTS:

Persons need to be recognized as having dignity and worth.

Occupations exist for a purpose.

Occupational supply and demand has an impact on career planning.

### INFORMATIONAL OBJECTIVES:

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

**INFORMATIONAL OBJECTIVES:**

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

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**STRATEGIES**

Students will bring in clippings from newspapers and magazines that demonstrate the practical applications of science. Clippings will be posted on the bulletin board.

Show and discuss films on the general categories of Earth Science and have students write a short essay on an occupation they can relate to one of these films and how the performance of that job affects them.

Divide students into groups, give them a task and have them apply scientific knowledge of which they are already familiar to carry out this task. Have students make a list of the types of jobs necessary to complete this project.

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**RESOURCE MATERIALS**

Newspapers and Magazines

**Films:**

- Oceanography,
- Science of the Sea,
- Our Changing Earth,
- How We Explore Space,
- Story of a Storm

List of tasks from which to choose.

- 1) Move a large stone
- 2) Produce an electric current
- 3) Use water power to move an object
- 4) Raise the "Titanic"



**INFORMATIONAL OBJECTIVES:**

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

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**STRATEGIES**

Provide filmstrips for individual or group studies.

**RESOURCE MATERIALS**

Filmstrips:  
Chemistry For Today Series - Group I:  
Atoms, Elements, Symbols, Formulas and Equations  
Experience In Physical Science Series:  
Experiments With Length,  
Experiments With Mass,  
Experiments With Volume and Density,  
Experiments With Simple Machines  
Introduction to Our Earth and Sun Series:  
Our Earth: Land, Water and Air.

Tapes:  
The Metric System,  
Newton's Law of Universal Gravitation

Provide tapes for individual or group studies.

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### Suggested Student Outcome(s) for Unit I

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories by listing ten occupations and associated life styles which he feels directly influence his life. Eight out of ten of the occupations listed must agree with life styles.

In determining his career goals the student will evaluate the importance of all vocations to the overall functioning of society by describing how the eight out of ten occupations previously listed directly influence his life.

The student will review the fluctuating job market and the need for considering this factor in job evaluation by describing a general trend in the job market from observations made on newspaper and magazine clippings. This description will be evaluated by the teacher according to the accuracy and interpretation of mediated fact.

### Suggested Evaluation Procedures for Unit I

Clippings brought in by students will be explained to the class by students, and the student explanation will be evaluated by classmates using a scale from one to five.

Essays on the effects of job performance on individuals will be graded on content and relevance. Evaluation of projects will be done by student evaluations of classmates' contributions to the projects.



## UNIT II - GEOLOGIC TIME

### EDUCATIONAL GOALS:

To illustrate the applications of scientific knowledge to leisure time activities.

To show how leisure time activities can lead to career opportunities.

### CONCEPTS:

There is a wide variety of careers which may be classified in several ways.

Education and work are interrelated.

Occupations and life styles are interrelated

Job characteristics and individuals must be flexible in a changing society.

### INFORMATIONAL OBJECTIVES:

The student will classify the careers presented according to his abilities, skills, interests and goals.

In developing his career goals the student will identify occupations by the education that is necessary to perform them effectively.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

The student will relate why change will occur and why he must remain flexible in working toward his career goals.

**INFORMATIONAL OBJECTIVES:**

The student will classify the careers presented according to his abilities, skills, interests and goals.

In developing his career goals the student will identify occupations by the education that is necessary to perform them effectively.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

The student will relate why change will occur and why he must remain flexible in working toward his career goals.

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**STRATEGIES**

Have a Geologist speak to the class and bring in tools of his trade.

Show films on Paleontologists. Discuss why dinosaurs became extinct and how this can relate to remaining flexible in a changing society.

Conduct field trip to collect fossils. (Proposed for a Saturday).

Send a task force to Surry Nuclear Power Plant to talk with personnel and gather information on nuclear energy.

Each student will identify a job in which he is interested, investigate this job and report on it to the class.

Provide filmstrips for individual or group studies.

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**RESOURCE MATERIALS**

Films: The Dinosaur Age, Message From A Dinosaur

Lieutenant Run  
Petersburg, Virginia

Nuclear Power Plant  
Surry, Virginia

Reference books and/or  
resource persons

Filmstrips:  
Ecology and Man Series-  
Set I:

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**INFORMATIONAL OBJECTIVES:**

The student will classify the careers presented according to his abilities, skills, interests and goals.

In developing his career goals the student will identify occupations by the education that is necessary to perform them effectively.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

The student will relate why change will occur and why he must remain flexible in working toward his career goals.

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**STRATEGIES**

**RESOURCE  
MATERIALS**

Adaptation to Environment

Learning to Study Series:  
Taking Notes in Class,  
Writing a Research Paper

Library Tools Series:  
Aids in Writing and Reading

What is Radioactivity;  
Radioactive Transmutation and  
Half-Life,  
Big Bend, Texas

### Student Outcome(s) for Unit II

The student will classify the careers presented according to his abilities, skills, interests and goals by ranking in order of his own preference ten jobs presented in this unit.

In developing his career goals the student will identify eight out of ten occupations presented in class reports on job interests by the education that is necessary to perform them effectively.

In appraising an occupational cluster the student will compare the associated life style with his own desires and needs by ranking ten life styles, in order of his own preference, and comparing them to his ranking of careers.

The student will relate why change will occur and why he must remain flexible in working toward his career goals by identifying correctly three species of extinct organisms. A possible reason for their extinction must be suggested, and the student must describe to his own satisfaction a method by which these organisms might have adapted themselves to avoid extinction.

### Suggested Evaluation Procedure(s) for Unit II

Students will evaluate the speaker after he has left. Using the students' evaluations of the speaker, the teacher will evaluate student performance using observations made during the speaker's performance.

On the field trip, students will be evaluated on participation.

The student task force report will be evaluated by averaging grades given by fellow students, grades given by the task force and grades given by the teacher based upon observation of the task force.

Student reports will be evaluated by classmates using a scale from one to five.

### UNIT III - WEATHERING

#### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To help student realize the personal satisfaction that can be gained through knowledge.

#### CONCEPTS:

Persons need to be recognized as having dignity and worth.

Occupations exist for a purpose.

#### INFORMATIONAL OBJECTIVES:

The students will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

**INFORMATIONAL OBJECTIVES:**

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

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**STRATEGIES**

View films and conduct a discussion on related occupations.

Invite a speaker from the Highway Department.

Invite a speaker from the Appomatox River Water Authority.

Invite a speaker from the Sewage Treatment Plant.

Have students write essays centering around the life styles of the previous speakers.

Have students pick a category in which they are interested, get organized into groups, research topics and prepare a television style documentary on that topic.

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**RESOURCE MATERIALS**

Films: Moving Things On Land,  
Physics and Chemistry of Water

Virginia Department of Highways

Appomatox River Water Authority

Division of Public Works

Information gained from resource persons, reference books and video tape equipment

**INFORMATIONAL OBJECTIVES:**

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

STRATEGIES	RESOURCE MATERIALS
Provide filmstrips for individual or group studies.	<u>Chemistry for Today Series- Group I: Solutions, Suspensions and Colloids; Acids, Bases and Salts</u>
	<u>Chemistry Series - Set 6: Hydrogen Ion Concentration</u>
	<u>Understanding Weather and Climate Series: Humidity and How It Affects Us</u> <u>Moisture and Precipitation in the Air</u>
Provide tapes for individual or group studies.	<u>The Water Cycle</u>

Suggested Student Outcome(s) for Unit III

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories by writing an essay on "What I would do and how I would live if I" (a) worked for the Appomattox River Water Authority. (b) worked for the Highway Department. (c) worked for the Division of Public Works. Essays will be graded on content.

In determining his career goals the student will evaluate the importance of all vocations to the overall functioning of society by demonstrating to the satisfaction of the teacher and to his classmates an ability to work with others while preparing a television style documentary.

Suggested Evaluation Procedure(s) for Unit III

The teacher will evaluate essays based upon content.

Evaluation of the television style documentary will be based upon student reactions to the documentary.



#### UNIT IV - GEOGRAPHIC LOCATIONS

##### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To show the necessity of using other disciplines in the communication and application of scientific knowledge.

To illustrate the applications of scientific knowledge to leisure time activities.

To show how leisure time activities can lead to career opportunities.

To help students realize the personal satisfaction that can be gained through knowledge.

An understanding and acceptance of self is important throughout life.

Occupations exist for a purpose.

Work means different things to different people.

Individuals differ in their interests, abilities, attitudes and values.

Job specialization creates interdependency.

The student will assess his abilities, talents, special skills and interests in reference to the occupational areas presented.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

##### INFORMATIONAL OBJECTIVES:

225

INFORMATIONAL.  
OBJECTIVES:  
(Continued)

The student will value the merits in his classmates' analysis of work.

The student will identify the differing interests, abilities, attitudes and values of his classmates.

As the student explores one occupational area, he will examine the support given to and taken from other occupational areas.

INFORMATIONAL OBJECTIVES:

The student will assess his abilities, talents, special skills and interests in reference to the occupational areas presented.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will value the merits in his classmates' analysis of work.

The student will identify the differing interests, abilities, attitudes and values of his classmates.

As the student explores one occupational area, he will examine the support given to and taken from other occupational areas.

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STRATEGIES

Students will write, produce and perform a play following guidelines formed around career concepts.

Provide filmstrips for individual or group studies.

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RESOURCE  
MATERIALS

Filmstrips:  
World Geography  
Series:  
Map and Map  
Projections

Introduction to  
Earth and Sun  
Series:  
How Earth Move-  
ments Affect Us

Provide tapes for individual or group studies.

Tapes:  
The Earth Moves,  
Longitude and  
Latitude,

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**INFORMATIONAL OBJECTIVES:**

The student will assess his abilities, talents, special skills and interests in reference to the occupational areas presented.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will value the merits in his classmates' analysis of work.

The student will identify the differing interests, abilities, attitudes and values of his classmates.

As the student explores one occupational area, he will examine the support given to and taken from other occupational areas.

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**STRATEGIES**

**RESOURCE  
MATERIALS**

Time Zones,  
Zones of the Earth,  
Climate

#### Suggested Student Outcome(s) for Unit IV

The student will assess his abilities, talents, special skills and interests in reference to occupational areas by choosing one task which he considers himself capable of doing in the production, writing and performing of a play. He will be evaluated by his classmates upon performance in the task he has chosen.

The student will evaluate the importance of all careers to the overall functioning of society by observing his classmates' performances in the project and grading them on their contribution to the total success of the play.

The student will value the merits in his classmates' analysis of his work when they grade him on his performance of a task.

The student will identify the differing interests, abilities, attitudes and values of his classmates through observation of their actions and use of these observations in assigning a grade to their work.

As the student explores one occupational area (by performing his designated task), he will examine the support given to and taken from other occupational areas.

#### Suggested Evaluation Procedure(s) for Unit IV

The student will be graded by his classmates' evaluations of his contribution to the entire project. He will also receive a daily grade based on the observations of the teacher. A grade will be given to the final production based upon the material presented and the professionalism of the production. All three grades will be averaged to obtain the student's final grade.

## UNIT V - METEOROLOGY

### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To illustrate the applications of scientific knowledge to leisure time activities.

To show how leisure time activities can lead to career opportunities.

### CONCEPTS:

There is a wide variety of careers which may be classified in several ways. Education and work are interrelated.

Environment and individual potential interact to influence career development.

### INFORMATIONAL OBJECTIVES:

The student will assess his abilities, talents, special skills and interests in reference to the occupational areas presented.

In developing his career goals the student will identify occupations by the education that is necessary to perform them effectively.

The student will analyze the role of environment in career outcome and investigate the influence of potential on career planning.

**INFORMATIONAL OBJECTIVES:**

The student will assess his abilities, talents, special skills and interests in reference to the occupational areas presented.

In developing his career goals the student will identify occupations by the education that is necessary to perform them effectively.

The student will analyze the role of environment in career outcome and investigate the influence of potential on career planning.

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**STRATEGIES**

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**RESOURCE  
MATERIALS**

View films on Meteorology relating subject matter to occupations.

Films:  
Climate and the World  
We Live In,  
Climates of North  
America,  
How Weather is Forecast,  
Origins of Weather,  
Snow

Take a field trip to WXEX-TV to see how weather is broadcast.

Send a task force to the United States Weather Bureau to gather information and report to the class.

Have a meteorologist speak to the class on his job.

Send task forces to talk to a pilot, a farmer, a man in the Navy and a man in the Coast Guard. Task forces will gather information pertaining to meteorology and the occupation.

United States Weather  
Bureau at Byrd  
International Airport

9-24-ES

**INFORMATIONAL OBJECTIVES:**

The student will assess his abilities, talents, special skills and interests in reference to the occupational areas presented.

In developing his career goals the student will identify occupations by the education that is necessary to perform them effectively.

The student will analyze the role of environment in career outcome and investigate the influence of potential on career planning.

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**STRATEGIES**

Interested students will make up weather reports in a manner similar to those seen on T.V. The best report from each class will be video-taped and shown to all classes.

Provide filmstrips for individual or group studies.

Provide tapes for individual or group studies.

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**RESOURCE  
MATERIALS**

Video Tape equipment

Fundamental Elements  
of Weather Series

Understanding Weather  
and Climate Series:  
What is Air Pressure,  
The Earth's Atmosphere

Introduction to Our  
Earth and Sun Series:  
Earth's Blanket of Air

Tapes:  
Atmosphere and  
Weather



Suggested Student Outcome(s) for Unit V

The student will classify the careers presented according to his abilities, skills, interests and goals by ranking in order of his own preference ten jobs presented in this unit.

In developing his career goals the student will identify eight out of ten occupations by the education that is necessary to perform them effectively.

Valid reports by students will include information about the type of environment associated with a particular occupation and the qualifications necessary to obtain such an occupation.

Suggested Evaluation Procedure(s) for Unit V

Students will be tested on their trip to the television station by a teacher devised test stressing observation powers.

Task force members will prepare and make reports to the class using any format they wish. Grades will be determined by individual members of the task force and their rating of other members as well as the evaluation of the in-class reports by all classmates.

## UNIT VI - WATER AT WORK

### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To show the necessity of using other disciplines in the communication and application of scientific knowledge.

Persons need to be recognized as having dignity and worth.

Occupations exist for a purpose.

There is a wide variety of careers which may be classified in several ways.

Occupational supply and demand has an impact on career planning.

Occupations and life styles are interrelated.

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

### CONCEPTS:

### INFORMATIONAL OBJECTIVES:

### INFORMATIONAL OBJECTIVES:

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

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### STRATEGIES

View films introducing some occupations related to water at work.

Take a field trip to Pocahontas State Park to examine streams and stream beds. Interview park employees and tour the park.

Invite speakers or secure information on the following topics:

- a. flood control

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### RESOURCE MATERIALS

Films:  
Erosion,  
Glaciers,  
The Great Lakes--How  
They Were Formed,  
Making of the River,  
How We Know About the  
Ice Ages,  
The Stream

INFORMATIONAL OBJECTIVES:

The student will recognize the contribution to society of all categories of occupations and the variety of life styles associated with these categories.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

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STRATEGIES

- b. the Commission of Game and Inland Fisheries
- c. the United States Navy to talk on Antarctica
- d. hydroelectric power

Have students work with stream table.

Provide filmstrips for individual or group studies.

Stream Table

Filmstrips:  
Rivers.

Bryce Canyon, Utah,  
Mammoth Cave,  
Kentucky

Have students construct geologic models of river or glacial systems. Students will report on the features of their model and the use of models in business and industry.

Models constructed from wire, cardboard and paper strips soaked in wheat paste.

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RESOURCE MATERIALS

9-29-ES

### Suggested Student Outcome(s) for Unit VI

The student will recognize the contributions to society of all categories of occupations and the variety of life styles associated with these categories by writing an essay on "The contributions made by (a) members of the Armed Forces, (b) workers in a hydro-electric plant, (c) members of the Water Control Board and (d) employees of a State Park." In his essay he will also discuss how this job affects him personally.

The student will classify the careers presented according to his abilities, skills, interests and goals by ranking in order of his own preference ten jobs presented in this unit.

The student will review the fluctuating job market and the need for considering this factor in job evaluation by describing a general trend in the job market from observations made of guest speakers. The student's interpretation will meet the satisfaction of the teacher.

In appraising an occupational cluster, the student will compare the associated life styles with his own desires and needs by making a list of life styles associated with the occupational cluster and rating each aspect on a scale from one to five.

### Suggested Evaluation Procedure(s) for Unit VI

The essay will be graded on content. The description of a job will be graded by the accurate interpretation of facts as presented by the speakers. In listing life styles the student will evaluate his own needs and desires. The teacher need only act in a guidance capacity. Grades for geologic models will be based on the detail and accuracy of features presented and the quality of the report presented with the model.

UNIT VII - DESERT

EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

CONCEPTS:

Occupations exist for a purpose.

Individuals are responsible for their career planning.

INFORMATIONAL  
OBJECTIVES:

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will recognize that even though career development gives direction for finding an occupation, he alone is responsible for making his final career plans.

**INFORMATIONAL OBJECTIVES:**

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will recognize that even though career development gives direction for finding an occupation, he alone is responsible for making his final career plans.

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**STRATEGIES**

View films on deserts and discuss related occupations.

Speaker from an Oil Co. on oil exploration in the desert.

Send a task force to a refinery to gather information and report to the class.

Have students report on what it would be like to live in the desert.

Provide filmstrips for individual or group studies.

Provide 8mm film loops for individual or group studies.

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**RESOURCE MATERIALS**

Films: Water, Life Blood of the West;  
Life in the Sahara

Filmstrips:  
Deserts  
Forest, Grassland or Desert?

8mm film Loop:  
Geographic Causes of Deserts

### Suggested Student Outcome(s) for Unit VII

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society by describing three ways in which his life is influenced by persons living and working in foreign countries. The student must be specific in his description of the job and location to which he is referring.

The student will recognize that even though career development gives direction for findings and occupation, he alone is responsible for making his final career plans. After being exposed to careers discussed in connection with unit VII, the student will select one career and make a report on that career to the class using any form of presentation he wishes to chose.

### Suggested Evaluation Procedure(s) for Unit VII

Reports will be evaluated by students. Written reports will be duplicated and passed out to all students to be graded. Other types of reports will be graded in a manner appropriate to the style of the report.



## UNIT VIII - OCEANOGRAPHY

### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To illustrate the applications of scientific knowledge to leisure time activities.

To show how leisure time activities can lead to career opportunities.

To help students realize the personal satisfaction that can be gained through knowledge.

### CONCEPTS:

Occupations exist for a purpose.

There is a wide variety of careers which may be classified in several ways.

Occupational supply and demand has an impact on career planning.

Job specialization creates interdependency.

Occupations and life styles are interrelated.

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

### INFORMATIONAL OBJECTIVES:

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

As the student explores one occupational area, he will examine the support given to and taken from other occupational areas.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

9-34-ES

**INFORMATIONAL OBJECTIVES:**

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

As the student explores one occupational area, he will examine the support given to and taken from other occupational areas.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

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**STRATEGIES**

**RESOURCE  
MATERIALS**

View films on Oceanography and discuss related occupations.

Films: The Beach, A River of Sand,  
Oceanography, Challenge of the Oceans,  
That's Under the Ocean;  
Food From the Sea;  
Seashore Life

Engage speakers on Marine Science and scuba diving.

Virginia Institute of Marine Science, Gloucester, Virginia

Have students do special projects.

Water testing equipment, ship models, posters, aquarium, etc.

Plan a field trip to a shipyard and/or Mariner's Museum.

Newport News Shipbuilding and Drydock Corporation and/or Mariner's Museum

9-35-ES

**INFORMATIONAL OBJECTIVES:**

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

As the student explores one occupational area, he will examine the support given to and taken from other occupational areas.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

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**STRATEGIES**

**RESOURCE  
MATERIALS**

Provide filmstrips for individual or group studies.

Filmstrips:  
Understanding  
Oceanography Series:

Sea Coasts,  
Atolls

9-36-ES

Suggested Student Outcome(s) for Unit VIII :

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society by describing how eight out of ten occupations presented in this unit directly influence his life.

The student will classify the careers presented according to his abilities, skills, interests and goals by ranking in order of his own preference ten jobs presented in this unit.

The student will review the fluctuating job market and the need for considering this factor in job evaluation by describing in essay form one change in oceanography that has occurred in the past one hundred years and the implications of this change upon the job market. The report will be graded on content.

The student will relate the importance of other vocations to that of oceanography by listing ten occupations which he feels support oceanography and by describing their relationship to oceanography.

In appraising occupations in oceanography and their related life styles the student will choose two life styles which he does not like and explain orally to the satisfaction of his classmates why he does not like these aspects of oceanography.

Suggested Evaluation Procedure(s) for Unit VIII

The essays on changing oceanography will be graded on content and relevance to topic. Oral explanations of life styles associated with oceanography will be graded by students using a scale from one to five with an explanation by the student telling why he gave each grade.

## UNIT IX - MOUNTAINS

### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To illustrate the applications of scientific knowledge to leisure time activities.

To show how leisure time activities can lead to career opportunities.

### CONCEPTS:

Occupations exist for a purpose.

There is a wide variety of careers which may be classified in several ways.

Work means different things to different people.

Occupations and life styles are interrelated.

### INFORMATIONAL OBJECTIVES:

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will value the merits in his class-mates' analysis of work.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

**INFORMATIONAL OBJECTIVES:**

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will value the merits in his class-mates' analysis of work.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs.

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**STRATEGIES**

View films and discuss the occupations and life styles depicted.

Discuss the recreational aspects and mineral resources of mountain areas. Have students design a ski resort . golf course, a camping area or a mountain cabin and associate occupations or investigate mining operations.

Engage a speaker on mining,

Provide filmstrips for individual or group studies.

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**RESOURCE MATERIALS**

Films: Birth and Death of Mountains,  
Geyters and Geysers,  
Earthquakes and Volcanoes,  
Ponpeia and Vesuvius,  
Volcanoes in Action

Magazines, any resource persons students wish to interview, films and reference books.

Filmstrips:  
Mountains;  
The Great Smoky Mountains;  
Grand Tetons. Wyoming;  
Volcanoes

9-39-ES

Suggested Student Outcome(s) for Unit IX

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society by listing occupations that would be helpful and necessary in working on his project.

The student will rank the occupational tasks encountered in completing his project by evaluating them in terms of his own abilities, skills, interests and goals.

The student will recognize the merits of his classmates' analysis of work by judging their projects and offering a written critique and grade on their work.

In appraising an occupational cluster, the student will compare the associated life style with his own desires and needs by self-analysis in the form of a short essay on "Why I chose \_\_\_\_\_ as a project."

Suggested Evaluation Procedure(s) for Unit IX

Grades for projects and related reports will be the result of combining (a) the grade given by fellow students, (b) the essay grade given by the teacher and (c) a grade given by the teacher to student critiques of other projects.

9-40-85

## UNIT X - GEOPHYSICS

### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To help students realize the personal satisfaction that can be gained through knowledge.

### CONCEPTS:

Occupations exist for a purpose.

Environment and individual potential interact to influence career development.

Job characteristics and individuals must be flexible in changing society.

### INFORMATIONAL OBJECTIVES:

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will analyze the role of environment in career outcome and investigate the influence of potential on career planning.

The student will relate why change will occur and why he must remain flexible in working toward his career goals.



**INFORMATIONAL OBJECTIVES:**

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society.

The student will analyze the role of environment in career outcome and investigate the influence of potential on career planning.

The student will relate why change will occur and why he must remain flexible in working toward his career goals.

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**STRATEGIES**

View films and discuss the related occupations.

Students will be given a situation--Earthquake in Juneau, Alaska. They must organize a relief program. What resources and what types of occupations would be needed?

Interview a speaker on earthquakes and relief programs from the Red Cross and/or send a task force to the Red Cross.

Interview a speaker from the Armed Forces on their role in earthquake relief.

Provide filmstrips for individual or group studies.

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**RESOURCE MATERIALS**

**Films:**

Earthquakes,  
The Hidden Earth-  
Seismology,  
What's Inside the Earth

Any resource persons the students wish to contact, reference books and relief agencies (Red Cross, etc.)

**Filmstrip:**

Yellowstone, Wyoming

9-42-ES

Suggested Student Outcome(s) for Unit X

In determining his career goals the student will evaluate the importance of all careers to the overall functioning of society by reporting to the class on the role played by a relief organization in reacting to a natural disaster.

The student will analyze the role played by environment in career outcome and investigate the influence of potential on career planning by self-evaluating his abilities in organizing a relief program.

The student will relate why change will occur and why he must remain flexible in working toward his career goals by preparing a report on the impact upon individuals of any physical change of the earth's surface. As an example the student may wish to report on the impact of the Alaskan Earthquake upon the individuals who lived through it.

Suggested Evaluation Procedure(s) for Unit X

Classmates will evaluate each other by filling out a critique sheet on individual reports. Reports made by groups will be evaluated by the rest of the class, and a grade will also be given to each member of the group by the other members of that group.

## UNIT XI - ASTRONOMY

### EDUCATIONAL GOALS:

To demonstrate to the student the practical applications of scientific knowledge.

To relate the practical applications of scientific knowledge to career opportunities.

To help students recognize their abilities and set realistic occupational goals.

To help students realize the personal satisfaction that can be gained through knowledge.

### CONCEPTS:

There is a wide variety of careers which may be classified in several ways.

Individuals differ in their interests, abilities, attitudes and values.

Occupational supply and demand has an impact on career planning.

Individuals can learn to perform adequately in a variety of occupations.

The student will classify the careers presented according to his abilities, skills, interests and goals.

### INFORMATIONAL OBJECTIVES:

The student will identify the differing interests, abilities, attitudes and values of his classmates.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

The student will relate his own abilities to the performance of a variety of careers.

**INFORMATIONAL OBJECTIVES:**

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will identify the differing interests, abilities, attitudes and values of his classmates.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

The student will relate his own abilities to the performance of a variety of careers.

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**STRATEGIES**

View films on Astronomy and discuss related occupations.

Take a field trip to the National Aeronautics and Space Administration.

Interview a speaker on future plans for the United States space program.

Take a field trip to a planetarium.

Class project--Students will plan a trip to Mars, design the space ship to be used and determine what equipment must be taken along for a one-way trip. The project will be acted and recorded on video tape.

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**RESOURCE MATERIALS**

Films: Asteroids, Comets and Meteorites;  
What Is an Eclipse;  
How We Study the Sun

National Aeronautics and Space Administration,  
Langley Air Force Base,  
Virginia

NASA

Reference books, resource persons for interviews and video tape equipment

9-45-ES

**INFORMATIONAL OBJECTIVES:**

The student will classify the careers presented according to his abilities, skills, interests and goals.

The student will identify the differing interests, abilities, attitudes and values of his classmates.

The student will review the fluctuating job market and the need for considering this factor in job evaluation.

The student will relate his own abilities to the performance of a variety of careers.

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**STRATEGIES**

Provide filmstrips for individual or group studies.

Filmstrips:  
The Universe

Nuclear Radiation  
Series:  
Outer Space

Understanding Our  
Earth and Universe  
Series:  
Looking At the  
Universe

Provide 8mm film loops for individual or group studies.

8 mm Film Loops:  
Solar System-Inner  
Planets,  
Solar System-Outer  
Planets

Provide tapes for individual or group studies.

Cassette Tapes:  
The Universe,  
Light Years

9-46-ES

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**RESOURCE**  
**MATERIALS**

### Suggested Student Outcome(s) for Unit XI

The student will classify the careers presented according to his abilities, skills, interests and goals by ranking in order of his preference three occupations necessary to produce a video tape.

The student will identify the differing interests, abilities, attitudes and values of his classmates by comparing and discussing his list of occupations necessary to produce a video tape with those of his classmates. After the discussion the student should recall at least eight occupations proposed by his fellow-students.

The student will review the fluctuating job market and the need for considering this factor in job evaluation by noting those occupations, on his list of three, for which the demand is greatest and for which the demand is least.

The student will relate his own abilities to the performance of a variety of careers by filling out an application for those three positions which he desires and by assisting his classmates in selecting the best candidate for a specific job.

### Suggested Evaluation Procedure(s) for Unit XI

Students will be given a daily grade by the teacher based on observations of the students' work. Students will grade classmates on their cooperation in the program. The program will be shown to other Earth Science classes and rated as excellent, good or fair.

9-47-ES

PHASE II -- CAREER ORIENTATION AND EXPLORATION

Survey of Literature

Grade 9

## INTRODUCTION

Without doubt, language is one of man's most important human assets, enabling him to communicate beyond the baser animals.

Years ago, the student took language for granted in that he never questioned the "whys." Today, the question "why" is presenting quite a challenge to educators in all fields of endeavor because students are not adhering to the traditional drills that have not yielded a practical end. This being the case, many educators concur that teaching techniques and strategies must be relevant, sequential and flexible to everyday living.

The ninth grade Survey of Literature Program is designed to encourage young people on the junior high level to look more closely at their own individual strengths and weaknesses which will affect career choices. It will also enable the student to become aware of the important aspects of the world of work.

Regarding educational goals, the program is adapted to make instructional approaches relevant to living in a dynamic, flexible world.

Through the Language Arts Program, the student will engage in a variety of learning techniques that will assist him in developing appropriate communicative skills required in various careers.

Numerous career opportunities will be unveiled to the student through utilization of human resources, career exploration kits, related trips, and an assortment of media - reading materials, tapes, television, films, filmstrips, slides, transparencies, records, flow charts, audio-tapes, models and cassette tapes.

9-1-SL



## EDUCATIONAL GOALS

1. To provide the student with a variety of supplementary learning devices that will enhance his interpretation and comprehension of multiple career opportunities.
2. To recognize that man is an emotional being.
3. To expose the student to a variety of literary expressions which will permit him to explore in depth the concepts of career education in order that he better understands his role in a contemporary society.
4. To acquaint the student with a variety of poetic expressions that reveal the concepts of career education.
5. To involve the student in activities concerning new things, new people and new ideas.
6. To help the student develop communicative skills that will enable him to visualize the concrete relevancy among education, achievement and success.

## CONCEPTS

1. An understanding and acceptance of self is important throughout life.
2. Persons need to be recognized as having dignity and worth.
3. Occupations exist for a purpose.
4. There is a wide variety of careers which may be classified in several ways.
5. Work means different things to different people.
6. Education and work are interrelated.
7. Individuals differ in their interests, abilities, attitudes and values.
8. Occupational supply and demand has an impact on career planning.
9. Job specialization creates interdependency.
10. Environment and individual potential interact to influence career development.
11. Occupations and life styles are interrelated.
12. Individuals can learn to perform adequately in a variety of occupations.
13. Career development requires a continuous and sequential series of choices.
14. Various groups and institutions influence the nature and structure of work.
15. Individuals are responsible for their career planning.
16. Job characteristics and individuals must be flexible in a changing society.
17. Individuals must be able to perceive themselves as an integral part of their massive environment.
18. Change is inevitable.

19. Occupations and language usage are interrelated.
20. Education and occupation are interdependent.
21. Job characteristics and individuals change with time.
22. Communicating is vital---not only in daily living but also in careers.
23. Various groups and institutions influence occupational supply and demand.

### INFORMATIONAL OBJECTIVES

1. The student will recognize and evaluate by the use of human resources, textbook selections and films the role that fate, emotions, and search for identity play in the selections read and in the student's life-long career choice.
2. The student will analyze his own emotional structure as he examines the emotions expressed in the textbook selections, and he will select an occupational choice that parallels his emotional structure.
3. The student will analyze literary expressions in terms of the type of work one does being largely influenced by the educational skills one has developed--even though all work has dignity.
4. The student will analyze poetry in terms of its being used as a vehicle to express his ideas, interests, feelings, ambitions, etc.
5. The student will evaluate the inevitability of change as it concerns new discoveries and, therefore, new occupations.
6. The student will evaluate himself in terms of his ability to adjust to new things, people and ideas.
7. The student will examine the basic communicative skills that he should develop for any occupation during any era.

UNIT I - MAN AND FATE

EDUCATIONAL GOAL:

To provide the student with a variety of supplementary learning devices that will enhance his interpretation and comprehension of multiple career opportunities.

CONCEPTS:

- 1.) An understanding and acceptance of self is important throughout life.
- 2.) Individuals differ in their interests, abilities, values, and attitudes.
- 3.) Individuals can learn to perform adequately in a variety of occupations.

INFORMATIONAL  
OBJECTIVE:

The student will recognize and evaluate by the use of human resources, textbook selections and films the role that fate, emotions, and search for identity play in the selections read and in the student's life-long career choice.

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STRATEGIES

The student will check the Kuder Interest Inventory in order to evaluate his interests, abilities, values, and attitudes.

After a discussion of the word "fate," the student will write his definition of the word.

The student will identify a degree of fate that has intervened in the life of someone whom he knows.

The student will read textbook selections and point out characters who experienced fate while searching for identity and a variety of emotions.

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RESOURCE  
MATERIALS

Kuder Interest Inventory

Dictionary

Textbook:  
Responding III

9-6-SL

INFORMATIONAL OBJECTIVE:

The student will recognize and evaluate by the use of human resources, textbook selections and films the role that fate, emotions, and search for identity play in the selections read and in the student's life-long career choice.

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STRATEGIES

The student will hear a speaker whose life has been influenced by fate, his emotions or his search for identity.

The student will select a group in which to discuss the elements of fate, emotion and search for identity in the speaker's comments.

A student representative from each group will present to the class an oral report on their evaluation of the speaker.

Teacher-student conference on the Kuder Interest Inventory revelations. Students will observe film I Want To Be.

Film: I Want To Be

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RESOURCE  
MATERIALS

Suggested Student Outcome(s) for Unit I

1. Having checked the Kuder Interest Inventory, viewed appropriate instructional media, defined unfamiliar terms encountered throughout the unit, and read and discussed textbook selections, the student will reveal in a written discourse what he recognizes about the inevitability of fate and consequence on successful living.
2. (Students will recheck Kuder Interest Inventories). Having been exposed to human resources, various institutions, and films and filmstrips, the student will demonstrate through role playing the learning received as direct outgrowth of media.

Suggested Evaluation Procedure(s) for Unit I

1. Kuder Interest Inventory
2. Writing sentences
3. Observations
4. Individual response to questions
5. Guest speakers

## UNIT II - MAN AND HIS EMOTIONS

EDUCATIONAL GOAL: To recognize that man is an emotional being.

- CONCEPTS:
- 1.) Occupations and life styles are interrelated.
  - 2.) An understanding and acceptance of self is important throughout life.
  - 3.) Environment and individual potential interact to influence career development.

INFORMATICNAL OBJECTIVE: The student will analyze his own emotional structure as he examines the emotions expressed in the textbook selections, and he will select an occupational choice that parallels his emotional structure.

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### STRATEGIES

The student will read the textbook selections and discuss the emotions involved.

The student will respond to textbook questions which stress the moral dilemma in each selection.

The student will write his reaction to emotionally provocative words such as "snake," "fire," "Star Spangle Banner," "brother," "hate," etc.

The student will identify various emotional expressions in newspapers and magazines.

The student will play the Career Game to experiment with occupational attitudes, values, interests, and abilities.

To pursue the Career Game, the student will begin exploring the Occupational Exploration Kit.

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### RESOURCE MATERIALS

Textbook:  
Responding III

SRA Occupational  
Exploration Kit

Magazines and  
Newspapers

Career Game Kit

SRA Occupational  
Exploration Kit

9-9-SL



**INFORMATIONAL OBJECTIVE:**

The student will analyze his own emotional structure as he examines the emotions expressed in the textbook selections, and he will select an occupational choice that parallels his emotional structure.

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**STRATEGIES**

The student will list and define new words encountered in the exploration kit.

The student will write a summary of the information obtained from the exploration kit.

The student will select an occupational career based on personal or group interest to dramatize. To accompany this activity, the student will write letters inviting a person representing his occupational choice.

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**RESOURCE  
MATERIALS**

Suggested Student Outcome(s) for Unit II

1. At the end of the six weeks unit on "Man and His Emotions," the student will identify emotional expressions displayed in magazine and newspaper illustrations by listing ten different emotional appeals observed.
2. Having written definitions of occupational terms and sentences containing standard and standard expressions applicable to specific jobs, the student will recognize that both forms are acceptable depending upon the description of the work which may be measurable by a teacher-made objective test.
3. Having given the students the philosophy of the Career Awareness Program, and having been exposed to varied media testing values, interests, abilities, and attitudes, the student will display an insight into "self" and a respect for the individual differences of others as observed by the teacher in all performances.

Suggested Evaluation Procedure(s) for Unit II

1. Observation
2. Written summaries
3. Teacher-made objective test

### UNIT III - MAN'S SEARCH FOR IDENTITY

#### EDUCATIONAL GOAL:

To expose the student to a variety of literary expressions which will permit him to explore in depth the concepts of career education in order that he better understands his role in a contemporary society.

#### CONCEPTS:

- 1.) Job specialization creates interdependency.
- 2.) Education and work are interrelated.
- 3.) Job characteristics and individuals must be flexible in a changing society.

#### INFORMATIONAL OBJECTIVE:

The student will analyze literary expressions in terms of the type of work one does being largely influenced by the educational skills one has developed - even though all work has dignity.

---

#### STRATEGIES

The student will view and discuss filmstrips Image Makers to realize that success in a given career relies on sacrifice and appropriate education.

To further pursue his quest for identity, the student will write a brief narrative about his home or the home he would like it to be.

To become more aware of his identity, the student will read textbook selections and relate to the class the principal characters struggling to find themselves.

The student will name his idol and outline a form for gathering information about his idol.

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#### RESOURCE MATERIALS

Filmstrip:  
Image Makers

Textbook:  
Responding III

Encyclopedias,  
Newspapers, Books,  
Magazines, Books,  
TV Guides

9-12-S.

INFORMATIONAL OBJECTIVE: The student will analyze literary expressions in terms of the types of work one does being largely influenced by the educational skills one has developed - even though all work has dignity.

RESOURCE MATERIALS

STRATEGIES

The student will obtain information about his idol by making personal contacts or from information media.

Encyclopedias,  
Newspapers,  
Magazines, Books,  
TV Guides

The student will present an oral report showing that he realizes how educational skills will influence his occupational choice.



Suggested Student Outcome(s) for Unit III

1. Given a list of 25 job opportunities and 25 educational skills, each student will match at least 20 corresponding skills with the related job opportunity.

Suggested Evaluation Procedure(s) for Unit III

1. Dialogue
2. Written paragraphs
3. Oral and written reports

UNIT IV - MAN IN A POETIC MODE

**EDUCATIONAL GOAL:** To acquaint the student with a variety of poetic expressions that reveal the concepts of career education.

- CONCEPTS:**
- 1.) Occupations and life styles are interrelated.
  - 2.) Environment and individual potential interact to influence career development.

**INFORMATIONAL OBJECTIVE:** The student will analyze poetry in terms of its being used as a vehicle to express his ideas, interests, feelings, ambitions, etc.

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STRATEGIES

The student will read and list named or suggested occupations in each poem.

Volunteers will write on the blackboard their list of recognized occupations in poems read.

The student will view filmstrips in order to recognize poetic expressions.

The student will write a few lines of verse depicting his own philosophy of work.

The student will illustrate the moods reflected in his lines of verse.

The interested student will improvise a drama based on a particular poem reflecting an occupation. Other students will display bulletin board captions and moods contributed by students.

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RESOURCE MATERIALS

Textbook  
Responding III

Filmstrip:  
Understanding Poetry-  
Series I and II

INFORMATIONAL OBJECTIVE: The student will analyze poetry in terms of its being used as a vehicle to express his ideas, interests, feelings, ambitions, etc.

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STRATEGIES

Students improvising the drama will present their activity to the class or English classes.

RESOURCE  
MATERIALS

Suggested Student Outcome(s) for Unit IV

1. Given an occupational poem to read the student will show that he recognized its relevancy by enumerating all the occupations printed or suggested in the poem.
2. Given a descriptive poem to read, each student will show that he is cognizant of figurative language by underlining all figures of speech in the poem.

Suggested Evaluation Procedure(s) for Unit IV

1. Diagnostic test
2. Oral and written reports
3. Group participation
4. Drama presentations

9-17-SL



UNIT V - MAN'S DISCOVERIES

EDUCATIONAL GOAL: To involve the student in activities concerning new things, new people and new ideas.

- CONCEPTS:
- 1.) Change is inevitable.
  - 2.) Individuals must be flexible in a changing society.

INFORMATIONAL OBJECTIVE: The student will evaluate the inevitability of change as it concerns new discoveries and, therefore, new occupations.

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STRATEGIES	RESOURCE MATERIALS
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The student will read textbook selections and discuss the things, people and ideas involved.

Textbook:  
Responding III

The student will work in small groups to list new occupations that directly result from new discoveries. Ex. - medicine, space, food, production and recreation.

Media resources

The student will present his new discovery list to the class for general discussion.

Based on his interest, the student will write a paragraph projecting himself into a future occupation - including educational requirements, special skills, etc.

SRA Widening Occupational Roles Kit

Suggested Student Outcome(s) for Unit V

1. Having worked in small investigation groups to secure information on his occupational interest, the student will construct sentences with 100% accuracy dealing with data collected from his investigation.
2. Having engaged in the SRA Work Kit and other research activities related to his career interest, the student will explain in a paragraph his understanding of the required skills and inherent dignity of any job.

Suggested Evaluation Procedure(s) for Unit V

1. Group participation
2. Oral and written reports
3. Written paragraphs

UNIT VI - IAN AND HIS TIME

- EDUCATIONAL GOAL:** To help the student develop communicative skills that will enable him to visualize the concrete relevancy among education, achievement and success.
- CONCEPTS:** Individuals can learn to perform adequately in a variety of occupations available.
- INFORMATIONAL OBJECTIVE:** The student will examine the basic communicative skills that he should develop for any occupation during any era.

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STRATEGIES

The student will be given a 5-week unit contract.

The student will list and discuss jobs now available which may become obsolete in the future.

The student will read textbook selections and list occupations recognized.

The student will take a field trip to a factory in order to support a research project on the essential skills utilized and various occupations involved in the production of an item.

The student will present an oral report on his research and pass in his contract.

As a culminating pre-evaluation method, students will organize a review of the foregoing units.

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RESOURCE MATERIALS

Textbook:  
Responding III

Textbook:  
Responding III

DuPont, Inc.;  
Allied Chemical Co.;  
Syntex, Inc.;  
Brenco, Inc.;  
Firestone

Suggested Student Outcome(s) for Unit VI

1. Having contracted five weeks of unit study on "Man and His Time," the student will analyze the necessity of developing basic communication skills in any occupation by presenting a detailed oral report on his contract.
2. Having been exposed to varied media, the student will demonstrate his understanding of the interrelationship of work and education by presenting a 5-minute talk to the class.

Suggested Evaluation Procedure(s) for Unit VI

1. Contracts
2. Observations
3. Oral and written reports

PHASE II - CAREER ORIENTATION AND EXPLORATION

Contemporary English

Grade 9

## INTRODUCTION

Without doubt, language is one of man's most important human assets, enabling him to communicate beyond the baser animals.

Years ago, the student took language for granted. He never questioned the "whys." Today, the question "why" is presenting quite a challenge to educators in all fields of endeavor because students are not adhering to the traditional drills that have not yielded a practical end. This being the case, many educators concur that teaching techniques and strategies must be relevant, sequential and flexible to everyday living.

The ninth grade Contemporary English Program is designed to encourage young people on the junior high level to look more closely at their own individual strengths and weaknesses which will affect career choices. It will also enable the student to become aware of the important aspects of the world of work.

Regarding educational goals, the program is adapted to make instructional approaches relevant to living in a dynamic, flexible world.

Through the Language Arts Program, the student will engage in a variety of learning techniques that will assist him in developing appropriate communicative skills required in various careers.

Numerous career opportunities will be unveiled to the student through utilization of human resources, career exploration kits, related trips, and an assortment of media - reading materials, tapes, television, films, filmstrips, slides, transparencies, records, flow charts, audio-tapes, models and cassette tapes.

9-1-CE

## EDUCATIONAL GOALS

1. To establish an atmosphere conducive to understanding self(abilities, interests, attitudes and values).
2. To understand that the development of basic educational skills are prerequisites to success in school and on the job.
3. To provide an opportunity for students to express themselves in writing.
4. To recognize the interrelationship of words as they apply to occupations.
5. To distinguish between the levels of language usage as it pertains to the various occupations.
6. To realize that skill development is a prerequisite to success in any field of endeavor in education and occupation.

## CONCEPTS

1. Education and work are interrelated.
2. Individuals differ in their interests, abilities, attitudes and values.
3. Career development requires a continuous and sequential series of choices.
4. Education and occupation are interdependent.
5. Various groups and institutions influence occupational supply and demand.
6. Occupations and language usage are interrelated.



## INFORMATIONAL OBJECTIVES

1. The student will analyze his interests, attitudes, and values in order to develop a concrete understanding of himself.
2. The student will visualize himself as a unique being.
3. The student will analyze the relationship between one's command of his language and the effect of this command on one's job choice.
4. The student will analyze the patterns that persist not only in sentence structure but also in occupational clusters.
5. The student will evaluate the relationship between individual occupational demands and specific language usage.
6. The student will demonstrate that grammatical skills affect communicative expressions and job choice.
7. The student will utilize field trips to secure occupational information and will report his findings in an acceptable written form.

## UNIT I - INTRODUCTION

- EDUCATIONAL GOAL:** To establish an atmosphere conducive to understanding self (abilities, interests, attitudes and values).
- CONCEPT:** Individuals differ in their interests, abilities, attitudes and values.
- INFORMATIONAL OBJECTIVES:**
- The student will analyze his interests, attitudes and values in order to develop a concrete understanding of himself.
  - The student will visualize himself as a unique being.

---

### STRATEGIES

The student will introduce himself and make one statement about himself. ex. - hobby, interest.

After defining the word "image," the student will write a five sentence paragraph on "Self-Image."

The student will check the Kuder Interest Inventory.

After checking the Kuder Test the student will compare and contrast in written and oral expressions his self image with that revealed by the Kuder Test.

The student will view the film I Want To Be in order to recognize that job opportunities are unlimited.

The student will play the Career Game to gain insight into possible vocations.

---

### RESOURCE MATERIALS

Textbook:  
Contemporary  
English 9  
Dictionary  
Kuder Interest  
Inventory

Film: I Want To Be

Career Game

9-5-CE

**INFORMATIONAL OBJECTIVES:** The student will analyze his interests, attitudes and values in order to develop a concrete understanding of himself."

The student will visualize himself as a unique being.

---

STRATEGIES

RESOURCE  
MATERIALS

The student will explore the Job Exploration Kit to obtain knowledge about a variety of occupations.

Job Exploration  
Kit

The student will select an occupation of interest from the Job Exploration Kit and role-play that occupation.

Suggested Student Outcome (s) for Unit I

1. Having checked the Kuder Interest Inventory, viewed appropriate instructional media, and defined unfamiliar terms encountered throughout the unit, the student will demonstrate respect for self and others through his relationship with his peers and adults.
2. Given a list of 25 job opportunities and 25 educational skills, the student will match at least 20 skills with the corresponding job opportunities.

Suggested Evaluation Procedures for Unit I

1. Role-playing
2. Individual responses to questions
3. Group participation
4. Kuder Interest Inventory
5. Oral discussions

## UNIT II - LANGUAGE

- EDUCATIONAL GOAL:** To understand that the development of basic educational skills are prerequisites to success in school and on the job.
- CONCEPT:** Education and work are interrelated.
- INFORMATIONAL OBJECTIVE:** The student will analyze the relationship between one's command of his language and the effect of this command on one's job choice.

---

### STRATEGIES

The student will view filmstrips to learn the structure of words.

The student will list and define words associated with his occupational choice.

The student will write sentences making use of words listed.

The student will write a descriptive paragraph on his occupational interest.

The student will write letters inviting people employed in his field of interest.

The student will take notes on the speaker's comments in order that he might evaluate the addressee's speech.

---

### RESOURCE MATERIALS

Filmstrips:  
Word Study Series and  
Words - Their Use,  
Origin, and Spelling  
Series,  
Tape Recorders, TV

**INFORMATIONAL OBJECTIVE:** The student will analyze the relationship between one's command of his language and the effect of this command on one's job choice.

---

STRATEGIES

The student will tape interviews with local businessmen of his choice and present the recordings to the class.

The student will bring in a list of commercials and identify the catch words that sell the product.

Stressing the role of commercials in everyday living, the student will present an oral report to the class.

The student will take a trip to the local TV studio to learn job opportunities in television productions.

The student will evaluate the career exploration by listing the job opportunities discovered.

---

RESOURCE  
MATERIALS

9-9-CF

SAMPLE INTERVIEW / FOLLOW - UP QUESTIONS

1. Whom did you interview?
2. When did you conduct the interview?
3. Under what circumstance was the interview conducted?  
Ex. - Was the interview on the job, on the street, or at a house, etc.?
4. What was the person's reaction to the interview?
5. What did you learn from the interview?
6. On the basis of the interview, would you like to repeat the assignment by interviewing someone else? Why or why not?

9-10-CE

Suggested Student Outcome (s) for Unit II

Having worked in small investigation groups to secure information on his occupational interest the student will construct, with 10% accuracy, 10 sentences dealing with data collected from his investigation.

Suggested Evaluation Procedure (s) for Unit II

1. Writing sentences and paragraphs
2. Letter writing
3. Oral discussions (group)
4. Individual response to questions
5. Teacher-made objective test
6. Oral and written reports



### UNIT III - COMPOSITION

**EDUCATIONAL GOAL:** To provide an opportunity for students to express themselves in writing.

**CONCEPT:** Education and work are interrelated.

**INFORMATIONAL OBJECTIVE:** The student will utilize field trips to secure occupational information and will report his findings in an acceptable written form.

---

#### STRATEGIES

The student will examine and discuss textbook models for writing guidance.

The student will tour a local manufacturing plant to secure occupational information about which to write his composition.

The student will outline information secured from the trip.

If the need arises, small investigation teams may pursue a follow up trip to the plant visited.

The student will use the resource center and/or listening stations in the classroom for information on his chosen subject.

The student will assemble his material in outline form.

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#### RESOURCE MATERIALS

Textbook:  
Contemporary English 9

Resource Center,  
Listening Stations

9-12-CE

INFORMATIONAL OBJECTIVE: The student will utilize field trips to secure occupational information and will report his findings in an acceptable written form.

RESOURCE  
MATERIALS

STRATEGIES

The student will write and submit a rough draft of his composition for the teacher's approval.

The student will write and distribute to classmates his composition for corrections. The class will select on the basis of quality, several compositions to reflect on the opaque projector screen.

Opaque  
Projector

9-13-GE

Suggested Student Outcome (s) for Unit III

Having explored the SRA Work Kit and having engaged in research activities related to his career interest, the student will assess in a written paragraph his understanding of the concept that each job requires specific skills and educational requirements.

Suggested Evaluation Procedure (s) for Unit III

1. Observation
2. Teacher-made objective test
3. Written reports

UNIT IV - GRAMMAR

- EDUCATIONAL GOAL:** To recognize the interrelationship of words as they apply to occupations.
- CONCEPT:** Career development requires a continuous and sequential series of choices.
- INFORMATIONAL OBJECTIVE:** The student will analyze the patterns that persist not only in sentence structure but also in occupational clusters.

STRATEGIES

RESOURCE MATERIALS

The student will study sentence patterns outlined in the textbook to visualize the correlation between sentence structure and occupational clusters.

Textbook:  
Contemporary English 2

The student will view a filmstrip on sentences to develop an understanding of sentence structure.

Filmstrip:  
The Sentence Series

The student will demonstrate that he recognizes the sentence patterns by composing 5 sentences using Career Kits for subject material.

Career Kits

The student will study job clusters from handouts to realize that job titles incorporate numerous opportunities.

Handouts

Following a displayed job cluster flow chart, the student will chart a job title forming a hierarchy.

Flow Charts

Based on the flow chart, the student will compose sentences containing the main elements of sentence structure.

9-15-CE

**INFORMATIONAL OBJECTIVE:** The student will analyze the patterns that persist not only in sentence structure but also in occupational clusters.

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STRATEGIES

RESC  
DATE

The student will study compound sentences and complex sentence structure described in textbook.

The student will practice writing compound and complex sentence structures by utilizing his job cluster as a subject.

As a culminating activity, the student will demonstrate his comprehension of sentence patterns and job clusters by focusing his attention on a teacher-made test.

9-16-CE

Suggested Student Outcome (s) for Unit IV

Having explored the SRA Work Kit and having engaged in research activities related to his career interest, the student will assess in a written paragraph his concept of individual job-skill requirements and job dignity.

Suggested Evaluation Procedure (s) for Unit IV

1. Diagnostic test
2. Teacher-made test
3. Group participation
4. Observation

UNIT V - USAGE

**EDUCATIONAL GOAL:** To distinguish between the levels of language usage as it pertains to the various occupations.

**CONCEPTS:** Occupations and language usage are interrelated.  
Education and occupation are interdependent.

**INFORMATIONAL OBJECTIVE:** The student will evaluate the relationship between individual occupational demands and specific language usage.

---

STRATEGIES

RESOURCE  
MATERIALS

The student will take a diagnostic test on language usage in the Audio-Lingual English Series.

Record: Audio  
Lingual English  
Series  
(Barbara Archibald  
and Ann E. Lientz)

The student will pursue drills I, II, and III on the two forms of simple and present tense in the Audio-Lingual Series.

The student will read materials in his textbook on standard and sub-standard usage after which he will discuss the pros and cons.

To reinforce the idea of proper language usage, the student will view a filmstrip on job interviewing.

Filmstrip: The Job  
Interview

On the basis of a classmate's occupational choice, the student will prepare a job interview.

INFORMATIONAL OBJECTIVE: The student will evaluate the relationship between individual occupational demands and specific language usage.

---

STRATEGIES

The students will interview each other orally in their chosen occupational interest emphasizing the correct usage of the present tense forms.

The student will conduct a general discussion of each interview placing emphasis on the format, and standard usage in present tense forms.

The student will participate in drills on the second side of the record stressing subject-verb agreement.

The student will identify standard and substandard subject -verb agreements on statements taken from the Career listing of concepts. See example:

Individuals (differ, differs) in their interests, attitudes, and values.

The student will discuss the unit concepts and cite examples of how education directly affects occupation.

---

RESOURCE  
MATERIALS

9-19-CE



Suggested Student Outcome (s) for Unit V

Having written definitions of occupational terms and sentences containing standard and sub-standard expressions applicable to specific jobs, the student will display the knowledge the both forms are acceptable depending on the work description by his performance on an Object: test.

Suggested Evaluation Procedure (s) for Unit V

1. Diagnostic test
2. Oral discussion
3. Teacher-made test
4. Contract/s - Unit/s
5. 2-minute talks

UNIT VI - SKILLS

- EDUCATIONAL GOAL: To realize that skill development is a prerequisite to success in any field of endeavor in education and occupation.
- CONCEPTS: Various groups and institutions influence occupational supply and demand.
- INFORMATIONAL OBJECTIVE: The student will demonstrate that grammatical skills affect communicative expressions and job choice.

---

STRATEGIES

The student will pursue drills on grammatical skills in the Audio-Lingual English Series.

To become familiar with a variety of job skills, small investigating teams will tour places of interest.

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RESOURCE MATERIALS

Audio-Lingual English Series

Field trips:  
Petersburg General Hospital,  
Petersburg Training School,  
Community College,  
Petersburg City Jail,  
local bank, and/or telephone Co.

The student will list the various job performances noted on his tour and select one to develop as a written report.

The student will view a filmstrip Steps In Building a Paragraph Series.

Opaque Projector,  
Filmstrip and record:  
Steps in Building Paragraph

9-21-CE

**INFORMATIONAL OBJECTIVE:** The student will demonstrate that grammatical skills affect communicative expressions and job choice.

---

STRATEGIES

RESOURCE  
MATERIALS

The student will select a desired method (comparing, contrasting, defining, etc.) of paragraphing and proceed with an outline of his subject.

The student will prepare a rough draft of his composition to be shown to the class on the opaque projector for comments identifying errors.

The student will write and submit to the teacher a final copy of his composition.

S-22-CE

Suggested Student Outcome (s) for Unit VI

The student will apply his knowledge of paragraphing skills by writing two paragraphs on the field trips, records and filmstrips incorporated in this unit.

Suggested Evaluation Procedure (s) for Unit VI

1. Diagnostic test
2. Writing sentences and paragraphs
3. Individual response to questions
4. Group participation

PHASE II -- CAREER ORIENTATION AND EXPLORATION

Mathematics

Grade 9

## INTRODUCTION

The career education program for ninth grade mathematics is designed to help students develop an awareness of the full range of options in the world of work through problem-solving, individual study, group study, discussions, interpretations and the utilization of human resources, assorted media, and related field trips.

Our intention is to infuse career education into the existing mathematics curriculum. Students will explore various careers in which mathematics is applied. We hope to expose our students to relevant career concepts and experiences that will make mathematics a more practical and interesting subject.

This guide was developed in conjunction with four units of the ninth grade mathematics curriculum that are conducive to the study of careers and career concepts as well as basic concepts in mathematics.

We realize that some careers demand more mathematical know-how than others. However, a strong mathematical foundation is essential for personal and avocational needs as well as vocational needs.

## EDUCATIONAL GOALS

1. To develop an awareness of the importance of mathematics in our society and the diversity of careers in which mathematics is needed.
2. To reinforce basic skills in mathematics through real-life experiences.
3. To present a realistic view of the world of work, and to encourage students to consider their own interests, abilities and skills in making career decisions.
4. To show the relationship of geometry and measurement to our economic system and to personal and occupational goals.

## CONCEPTS

1. Education and work are interrelated.
2. Many jobs require a knowledge of mathematics.
3. Individuals can learn to perform adequately in a variety of occupations.
4. Society is dependent upon the work of many people.
5. Basic education enhances job performance.
6. Every career requires some special preparation.
7. Occupations and life styles are interrelated.
8. Individuals are responsible for their career planning.
9. There are identifiable attitudes and behaviors which enable one to obtain and hold a job.
10. Job characteristics and individuals must be flexible in a changing society.
11. Career development requires a continuous and sequential series of choices.
12. Various groups and institutions influence the nature and structure of work.
13. Some workers produce goods, others produce services.
14. Society is dependent upon the work of many people.



### INFORMATIONAL OBJECTIVES

1. Students will recognize the importance of mathematics in our society.
2. Students will realize that career planning is a privilege and responsibility of the individual.
3. Students will participate in career related experiences that facilitate decision making.
4. Students will perform exercises relating to computing and managing finances of individuals and businesses.
5. Students will explore certain occupational areas in which geometry and measurement play a major role.
6. Students will discover that computational skills are needed in daily life and the world of work.
7. Students will become aware of their own interests, abilities and skills in making career decisions.

## UNIT I - A WAY TO BEGIN IN MATHEMATICS

**EDUCATIONAL GOAL:** To develop an awareness of the importance of mathematics in our society and the diversity of careers in which mathematics is needed.

- CONCEPTS:**
- 1.) Education and work are interrelated.
  - 2.) Many jobs require a knowledge of mathematics.
  - 3.) Society is dependent upon the work of many people.

**INFORMATIONAL OBJECTIVE:** Students will recognize the importance of mathematics in our society.

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### STRATEGIES

View and discuss filmstrips dealing with mathematics.

View and discuss films and filmstrips of careers in which mathematics is used.

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### RESOURCE MATERIALS

Filmstrips:  
What Good is Math?  
Exploring Mathematics  
On Your Own

Invitation to Mathematics

Films:  
Choosing Your Occupation  
Donald In Mathmagic Land  
Careers in Business- Data Processing

Filmstrips:  
Your Personality,  
The You Others Know

INFORMATIONAL OBJECTIVE: Students will recognize the importance of mathematics in our society.

RESOURCE MATERIALS

STRATEGIES

Resource Center

Have each student research an occupation of his choice to learn how mathematics is used by workers in that occupation. Each student will report his findings.

Visit a mathematics Laboratory.

Arrange a display board of careers that require a knowledge of mathematics.

Students will solve crossword puzzles which emphasize the relationship of mathematics to a variety of careers.

Research and discuss the career opportunities in the Petersburg area.

Interview persons whose job performances require a mathematical background.

Virginia State College

Pamphlets  
Newspapers  
Magazines

Virginia Employment  
Commission  
Progress Index Want Ads  
Petersburg Chamber of  
Commerce  
American Personnel, Inc

Home Economist  
Businessman  
Farmer  
Trader  
Lawyer  
Doctor  
Teacher

9-6-M

Suggested Student Outcome(s) for Unit I

1. Students will be able to discuss the importance of mathematics in our society.
2. Students will be able to show evidence of being aware of the variety of careers which require a knowledge of mathematics.

Suggested Evaluation Procedure(s) for Unit I

1. Discussion
2. Observation
3. Test

## UNIT II - MATHEMATICAL COMPUTATIONAL SKILLS

**EDUCATIONAL GOAL:** To reinforce basic skills in mathematics through real-life experiences.

- CONCEPTS:**
- 1.) Basic education enhances job performance.
  - 2.) Every career requires some special preparation.
  - 3.) Occupations and life styles are interrelated.
  - 4.) Individuals are responsible for their career planning.

**INFORMATIONAL OBJECTIVE:** Students will discover that computational skills are needed in daily life and the world of work.

---

### STRATEGIES

Have a guidance counselor discuss the use of tests in predicting success potential in a particular occupational area.

Discuss self-awareness and personality as important elements in determining success potential in an occupation.

Research and discuss some occupations that require special kinds of personality traits. Also, research the computational skills needed in the occupations. Examples:

Architecture  
Brickmasonry  
Dentistry  
Hotel Management  
Law Enforcement  
Veterinary Medicine

---

### RESOURCE MATERIALS

Guidance Counselor

Guidance Counselor

Occupational Outlook Handbook

Encyclopedia of Careers and Vocational Guidance

Paperbacks:

Opportunities in an Architecture Career

Opportunities in Law Enforcement Career

9-8-M

INFORMATIONAL OBJECTIVE: Students will discover that computational skills are needed in daily life and the world of work.

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STRATEGIES

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RESOURCE  
MATERIALS

Opportunities in Building  
Construction

Your Future in Dentistry

Your Future in Hotel  
Management

Pamphlets

Career Facts About Today's  
Veterinarian

Dentistry - A Changing  
Profession

Send investigation teams to conduct and tape interviews with people in occupations requiring a knowledge of basic mathematics. Play the tapes to the class.

Have students compute expenses for operating a car for one year. Then, interview an automobile rental agent or dealer.

View a film on the use of arithmetic in the food store.

Engage a self employed person to discuss his work and how he used mathematics.

Cassette Tape Player  
Cassette Tapes

Auto Rental Agent  
Auto Dealer

Film:  
Arithmetic in the Food Store

Self Employed Person  
Paperback:

Your Future in Your Own  
Business

9-9-M

INFORMATIONAL OBJECTIVE: Students will discover that computational skills are needed in daily life and the world of work.

RESOURCE  
MATERIALS

STRATEGIES

Arrange a field trip to the quality control section of Allied Chemical Corporation, Fibers Division.

Allied Chemical Corp.,  
Fibers Division,  
Hopewell, Va.

Have students rank their parents' occupations according to the following categories:

- Little mathematics required
- Moderate knowledge of mathematics
- Extensive knowledge of mathematics

Visit a computer center.

Fort Lee, Va.,  
Virginia State College

Paperbacks:

Your Future in the  
Electronic Computer  
Field

Your Future as an  
Electronic Technician

Discuss the purposes of advertising.

Research the role of the Federal Trade Commission and the Federal Communications Commission in regulating advertisements.

Federal Trade Commission  
Federal Communications  
Commission

Show how percent is used in advertising.

Newspapers

Have students solve business problems dealing with advertising.

9-10-M

INFORMATIONAL OBJECTIVE: Students will discover that computational skills are needed in daily life and the world of work.

---

STRATEGIES

RESOURCE  
MATERIALS

Discuss the American tax system.

List and explain the different kinds of taxes: H and R Block Agent

- excise tax
- sales tax
- real estate tax
- inheritance tax
- federal income tax
- local income tax
- property tax

Have students solve problems dealing with the various kinds of taxes.

9-11-M



Suggested Student Outcome(s) for Unit II

1. Students will be able to rank a list of 10 occupations according to the following categories:
  - Little mathematics required
  - Moderate knowledge of mathematics
  - Extensive knowledge of mathematics
2. Students will be able to show evidence that they can discuss the need of computational skills in daily life and the world of work.

Suggested Evaluation Procedure(s) for Unit II

1. Discussion
2. Observation
3. Tests and Quizzes

### UNIT III - MANAGEMENT AND INCOME

**EDUCATIONAL GOAL:** To present a realistic view of the world of work, and to encourage students to consider their own interests, abilities and skills in making career decisions.

- CONCEPTS:**
- 1.) Career development requires a continuous and sequential series of choices.
  - 2.) Individuals are responsible for their career planning.
  - 3.) Many jobs require a knowledge of mathematics.
  - 4.) Education and work are interrelated.
  - 5.) Job characteristics and individuals must be flexible in a changing society.
- INFORMATIONAL OBJECTIVES:**
- 1.) Students will perform exercises relating to computing and managing finances of individuals and businesses.
  - 2.) Students will become aware of their own interests, abilities and skills in making career decisions.

---

#### STRATEGIES

Discuss the topic, "What is My Career Goal?"

Have students list their interests, skills and abilities that can be of real help in meeting their career goals. Students should analyze these characteristics to see if any of these indicate a need for improvement.

Invite a resource person from the Virginia Employment Commission to discuss various jobs and their requirements.

9-13-M

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#### RESOURCE MATERIALS

Va. Employment Commission  
Posters:  
Business and Consumer Lit

INFORMATIONAL OBJECTIVES: 1.) Students will perform exercises relating to computing and managing finances of individuals and businesses.

2.) Students will become aware of their own interests, abilities and skills in making career decisions.

---

STRATEGIES

RESOURCE  
MATERIALS

List and investigate some careers to become aware of qualifications, working conditions, salaries, and social and psychological factors. Some suggested careers:

- Accounting
- Banking
- Insurance
- Management

Discuss the difference between wage earning and salaried occupations. Give some examples of each.

Discuss the information on paycheck stubs.

Interview an agent from the Social Security Administration.

Computers in Occupations  
Geometry in Occupations  
Algebra in Occupations  
Math in Life

SRA Handbook of Job Facts  
Encyclopedia of Careers and Vocational Guidance  
Occupational Outlook Handbo-

Pamphlet:

Should Your Child Be A Bank

Paperbacks:

Opportunities in Economics  
Opportunities in Life

Insurance Sales

Opportunities in Management  
Careers

Your Future in Accounting

Your Future in Your Own  
Business

Payroll Check Stubs

Social Security Administrat.

INFORMATIONAL OBJECTIVES: 1.) Students will perform exercises relating to computing and managing finances of individuals and businesses.

2.) Students will become aware of their own interests, abilities and skills in making career decisions.

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STRATEGIES

RESOURCE  
MATERIALS

Using a paycheck stub, compute the percent of Payroll Check Stub  
each deduction from the gross earnings.

Show the difference between gross pay and net pay.

Students will construct family budgets and prorate incomes.

Using the above constructed budgets, students will write and keep a record of checks necessary to carry out a monthly budget.

Have students find profits or losses of businesses when sales and operating expenses are known.

Conduct debates on (1) the advantages or disadvantages of borrowing money from various lending agencies and (2) paying cash versus installment buying.

Have students calculate the true rate of interest on loans offered by small loan companies.

Checkbooks

Films:

How Money Credit Help  
Consumer Education -  
Retail Credit Buying  
Consumer Ed. - Retail  
Credit Buying

- INFORMATIONAL OBJECTIVES: 1.) Students will perform exercises relating to computing and managing finances of individuals and businesses.
- 2.) Students will become aware of their own interests, abilities and skills in making career decisions.

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RESOURCE  
MATERIALS

STRATEGIES

View a film on banking, and discuss banking procedures and services.

Pamphlets:  
Using Bank Services  
Should Your Child Be A  
Banker

Film:  
Banks and Credits

After comparing hand operated banking procedures with modern banking procedures, students will identify and discuss jobs that have appeared or disappeared as a result of technology.

Invite a cashier to speak about the use of computational skills in that kind of work.

Cashier

Set up a school - wide bank with emphasis on Christmas savings and small loans for lunches, books, activities, etc. Use consultants from local banks to help initiate the project.

Local Bankers

Suggested Student Outcome(s) for Unit III

1. Students will be able to list the personal resources he must consider in meeting a career goal.
2. Students will be able to demonstrate their computational skills and knowledge of managing and using income.
3. Students will be able to discuss characteristics and requirements of various occupations.

Suggested Evaluation Procedure(s) for Unit III

1. Discussion
2. Observation
3. Tests and Quizzes
4. Demonstration
5. Practical exercises

## UNIT IV - GEOMETRY AND MEASUREMENT

**EDUCATIONAL GOAL:** To show the relationship of geometry and measurement to our economic system and to personal and occupational goals.

- CONCEPTS:**
- 1.) Many jobs require a knowledge of mathematics.
  - 2.) Job characteristics and individuals must be flexible in a changing society.
  - 3.) Some workers produce goods; others produce services.
  - 4.) Society is dependent upon the work of many people.

**INFORMATIONAL OBJECTIVE:** Students will explore certain occupational areas in which geometry and measurement play a major role.

---

### STRATEGIES

Discuss the need and value of a system of measuring.

Compare the metric system of measuring to the English system of measuring. Display various measuring devices.

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### RESOURCE MATERIALS

Films:  
Measurement  
Paperback:  
Precision - A Measure  
of Progress

Yard stick  
Metric Stick  
Liter Container  
Scales  
Micrometers  
Gauges  
Calipers  
Films:  
Metric System  
Meter, Liter And Gr

**INFORMATIONAL OBJECTIVE:** Students will explore certain occupational areas in which geometry and measurement play a major role.

RESOURCE  
MATERIALS

STRATEGIES

Display pictures of sophisticated measuring devices.

Tape interviews of workers who have occupations which require a knowledge of measurement.

Arrange for a panel of workers to visit the class and discuss the uses of geometry and measurement in their occupations.

Architect  
Carpenter  
Meteorologist  
Scientist  
Physician

Visit the Standard Bureau of Measurement in Washington, D. C.

Interview a machinist.

Titmus Optical Co.

Make a scale drawing of the classroom and its furniture.

Career Activity Center

Research the field of horology.

Resource Center

Arrange for investigation teams to see on-site demonstrations of the uses of measuring devices in the following occupations:

auto mechanics  
electronics  
pharmacy

9-19-M



INFORMATIONAL OBJECTIVE: Students will explore certain occupational areas in which geometry and measurement play a major role.

STRATEGIES	RESOURCE MATERIALS
Construct hypsometers and measure heights of various objects.	Career Activity Center
Engage a military artillery specialist to discuss the relationship of measurement and geometry to artillery.	Fort Lee, Va.
Show examples of the use of geometric figures and designs in our environment.	Ball Box Can Ice Cream Cone Tent
Make and present a slide presentation on urban architecture. Point out the geometric figures and designs incorporated in the architecture.	Career Activity Center
Construct a model of a building (school, office building, service center, etc.)	Career Activity Center

Suggested Student Outcome(s) for Unit IV

1. Student will be able to use various measuring instruments and recognize others.
2. Students will be able to match a list of measuring instruments with the occupations in which they are used.
3. Students will be more aware of the uses of geometric figures and designs.
4. Students will know the value of a system of measuring.

Suggested Evaluation Procedure(s) for Unit IV

1. Observation
2. Projects
3. Tests

BIBLIOGRAPHY  
Of  
CAREER EDUCATION  
MATERIALS

ARTICLES

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