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ABSTRACT

The bulletin gives Texas school personnel detailed suggestions for developing career exploration and investigation in middle schools. Prepared by a developmental committee composed of representatives of local school districts, regional education service centers, and career education research projects, it was designed to assist classroom teachers in integrating career education into the existing program. Each sample activity cites a performance objective that relates directly to a career concept and a career cluster. The activity is suggested for a particular unit in a subject area. More specificity is providing by citing an appropriate lesson in the unit for which the activity can be used. Many of the sample activities are easily adaptable to other subjects, some are alternatives for achieving the specific objective, while others are cumulative. Corresponding instructional resources are suggested. The following elementary level concepts of awareness are continued and expanded: attitudes toward work, attitudes toward those who work, seeing oneself as a valuable person, and the relationship of school to work. (MM)



BULLETIN 735

CAREER INVESTIGATION MIDDLE SCHOOLS

TEXAS EDUCATION AGENCY AUSTIN, TEXAS



US DEPARTMENT OF HEALTH.

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Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

- acceptance policies on student transfers from other school districts;
- (2) operation of school bus routes or runs on a non-segregated basis;(3) non-discrimination in extracurricular activities and the use
- (4) non-discriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning or dismissing of faculty and staff members who work with children;

of school facilities;

- (5) enrollment and assignment of students without discrimination on the ground of race, color or national origin; and
- (6) evidence of published procedures for hearing complaints and grievances.

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In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, Department of Health, Education and Welfare.

If there be a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

Foreword

A major goal of public education in Texas is to develop economic and occupational competency in students. Meeting this goal means assisting young people to discover and prepare for satisfying, productive means of earning their livings.

Local school districts are, therefore, encouraged to develop and implement career education comprehensively from kindergarten through the twelfth grade for all pupils and in all programs.

This bulletin, one of a series, gives Texas school personnel detailed suggestions for developing career exploration and investigation in middle schools. It was prepared by a developmental committee composed of representatives of local school districts, regional education service centers, and career education research projects, in cooperation with the Texas Education Agency staff.

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Other bulletins in this series provide suggestions concerning career education in the elementary school and the high school.

J. W. Edgar Commissioner of Education

Texas Education Agency Austin, Texas

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Rationale

Since most people spend a great part of their lives in some form of work--either as a means of earning a living, performing a social service, or simply fulfilling a personal need for achievement-the public schools should endeavor to relate the academic area of the curriculum to the realities of the work world.

Career education concepts can be integrated into the curriculum in such a way as to encourage students to make tentative career choices according to their own perceptions of their interests and abilities. As students investigate and develop interests, they will be able to begin directing their activities toward a narrower field of inquiry and research into career selection.

In this bulletin for middle schools, career education is designed to continue the general objectives of awareness begun in the elementary grades and to initiate the objectives of investigation into the career fields. At the end of the middle school experiences, students should:

have firsthand acquaintance with the economic system--as consumers and as observers of those who work to produce goods and perform services;

- be aware of the career fields identified by the U.S. Office of Education and possess indepth knowledge of several career fields;
- have explored rather thoroughly their own values, interests, and educational achievements;
- be prepared to select a tentative high school educational plan best suited to their individual needs and desires;
- be able to integrate their knowledge of themselves and of the world of work in order to identify careers for which they will prepare;
- recognize the changing nature of career commitment throughout an individual's lifetime and be able to reevaluate career choices with the possibility of making further choices later.

The activities selected are samples for integrating career education with the middle school curriculum and were selected in order to emphasize:

- thinking skills;
- the instructional strategies that are designed to produce change;
- the decision-making process.



To The Administrator

The administrative personnel must provide continuing support to teachers. The principal should see that teachers are provided with adequate materials, equipment, facilities, and time for planning. A team effort that involves the principal, counselors, teachers, librarians, and other school personnel should be used to provide the best environment in which the students work. The principal's role of facilitator and coordinator of the total effort can make career education a viable part of education for a productive and meaningful life.

Ongoing staff development for the acquisition of skills and attitudes, with emphasis on assessment and evaluation, should be a significant part of the implementation of career education. Staff development will be stronger if it involves the community. This involvement will stimulate interest and support of parents, business, and industries. The principal, with the help of the superintendent, should make available various resources, including both experiences and expertise.

The guidance program of the middle school should contribute to the investigative objectives. The counselor should serve as a resource person, coordinate information collection, and assist in individual and group assessment. He should become a pivotal person in planning, organizing, and evaluating career education.

Determining the success of career education depends upon evaluating its processes and its effects on participants. Appropriate data need to be presented to school boards and the general public about the effectiveness of the redirected programs. Local districts should determine specific responsibility among their personnel for the evaluation process.

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The school district should consider the possibilities of using Occupational Awareness courses as a means of achieving selected goals of career education. Further information on the Occupational Awareness program may be obtained from the Texas Education Agency.

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To The Teacher

Career education offers teachers another form of motivation for teaching the basic academic skills since, for many students, it is easier to learn a skill after having seen a need for it. It is hoped that the incorporation of career education into the basic curriculum will aid the teacher in capitalizing on the interests of each student and in providing individualized experiences that will guide the student into assuming more responsibility for his own learning.

Resource personnel drawn from the total community plus curriculum and materials which are present oriented as well as future oriented will

provide an environment for meaningful educational experiences.

It is important to note that, although the implementation of the career education concept is everyone's responsibility, the teacher is the key to helping students understand themselves in terms of their values, interests, and abilities and to see themselves and others as worthy and useful persons.

This bulletin is designed to assist classroom teachers to incorporate career education into the existing program. The bulletin is not comprehensive; rather it may be expanded to meet the teacher's needs.

Keys To Using This Bulletin

Each sample activity cites a performance objective that relates directly to a career concept and a career cluster. It is understood that in each case there are other objectives which are being met both in the subject content and in career education.

The activity is suggested for a particular unit in a subject area. More specificity is provided by citing an appropriate lesson in the unit for which the activity can be used. Many of the sample activities are easily adaptable to other subjects, and they

should serve as a stimulus for further development on the local level. Some of the activities are alternatives for achieving the specific objective while others are cumulative.

Teachers are encouraged to evaluate the activities and to modify, replace, or discard accordingly. Care should be taken not to minimize the task of implementing career education goals into the curriculum. This bulletin, supported by a strong staff development effort, can serve as a beginning

Career Education Concepts

In this bulletin the elementary level concepts of awareness are continued and expanded. Basically, these awareness concepts concern (1) attitudes toward work, (?) attitudes toward those who work, (3) seeing oneself as a valuable person, and (4) the relationship of school to work. The concepts used for the middle school are referred to directly in the sample activities.

- An understanding and acceptance of self is important throughout life.
- Individuals differ in interests, abilities, attitudes, and values.

- one lives, by supply and demand, or by changing conditions.
- Job specialization leads to interdependency.
- Investigative experience helps improve knowledge about careers.
- . Related occupations are grouped into clusters.
- Every career requires some special preparation.
- School subjects have significance for carear exploration.

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Career Clusters*

Business and Office Occupations
Marketing and Distribution Occupations
Communications and Media Occupations
Construction Occupations
Manufacturing Occupations
Transportation Occupations
Agri-business and Natural Resources Occupations
Marine Science Occupations

Environment Control Occupations
Public Services Occupations
Health Occupations
Hospitality and Recreation Occupations
Personal Services Occupations
Fine Arts and Humanities Occupations
Consumer and Homemaking-Related Occupations

*Source: U.S. Office of Education

CONCEPT: Every career requires some special preparation.

CAREER CLUSTER: All clusters

SUBJECT: Typewriting

UNIT: Applying for

Performance Objective: Using a typewriter, the student will be able to make application for a job, including a letter of application, resumé, and job application form.

Typing personal	LESSON CORRELATION
l. Have each student select a classified advertisement	SAMPLE ACTIVITIES
Local newspaper	RESOURCES

Typing personal business letters

Typing business

forms

- Have each student select a classified advertisement from a newspaper for a job which interests him. Determine whether this will be a real or simulated experience.
- 2. Have each student compose a letter of application for the ad he has selected.
- 3. Have each student type a resumé to be inclosed in the letter of application. The resumé should consist of personal information, education, work experience, and references. Be sure that the student knows that each reference should be asked for permission.
- 4. Have each student fill in a job application form.
- 5. Devise an appropriate way of having the students share the completed resumés and forms.
- 6. Compose a letter to a friend or relative who has recently been employed inquiring about the process.

Job application form obtained from company of the community

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CONCEPT: Investigative experience helps improve knowledge about careers.

CAREER CLUSTER: Business and Office Occupations SUBJECT: Typewriting

UNIT: Basic Typewriting Applications

Performance Objective: Student will be alle to name at least four types of equipment which require keyboard skills related to typewriting and describe the training needed pursuant to a career

Typing reports	LESSON CORRELATION
1. 更	
Each student will research various resources for	SAMPLE ACTIVITIES
Dictionary of Occupa-	RESOURCES

Composing at the typewriter

Typing tables

- bach student will research various resources for occupations which require keyboard skills related to typewriting, compiling information on note cards about career possibilities and the type and amount of training needed in the different occupations in this cluster.
- Type the title page and an outline for a report.

?

- Using information from note cards, compose a report naming the different types of equipment and the preparation skills essential to building a career related to that particular type of equipment.
- Type in tabulated form the information obtained in No 1 using headings of Occupation, Equipment Used, Preparation Required. Under Preparation Required use high school, technical training, or college.

4.

Dictionary of Occupational Titles. Vol. II.

3rd ed. Washington,
D.C.: U.S. Department

of Labor, 1965.

Occupational Outlook
Handbook Bulletin
1700. Washington,
D.C.: U.S. Department
of Labor, Bureau of
Labor Statistics, annual.

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

CAREER CLUSTER: Hospitality and Recreation; Health

SUBJECT: Physical Education

UNIT: Health and Fitness for Daily

Living

Performance Objective: After identifying the types of physical work demanded in an occupation that presently has interest for him, the student will be able to design a

physical fitness program best suited to the occupation and will justify the

elements included in the program.

Assessment of l. Have students s	LESSON CORRELATION
Have students select occupations in which they are	SAMPLE ACTIVITIES
Texas Education Age	RESOURCES

physical fitness ? presently interested.

occupation. Have the students identify through research, including interviews, the types of physical work demanded by the

ω Have each student make an assessment of his physical fitness

4. for that occupation. If any occupations chosen require minimal physical activity, have those students design Have each student design a fitness program utilizing an appropriate physical fitness program. in the community which would prepare him physically facilities and equipment available at home, school, or

> Guide. Bulletin 69l. Austin: Texas Educa-Secondary School Health tion Agency, 1970. **Education Curriculum**

> > 14

(Request list of publica-Washington, D.C. 20202. Physical Fitness, President's Council on cations.)

Planning the Secondary Texas Education Agency.

- 5. Have the students group themselves with other students with whom they are willing to share their information about themselves which led to their fitness program designs.
- Have the students try out the program for two weeks and report on progress and/or recommended modifications.

School Physical Education Program. Bulletin 625. Austin: Texas Education Agency, 1963.

Vestal, Theodore M., and Baker, Neal A., Jr. An Analysis of Fifteen Occupational Clusters Identified by the U.S. Office of Education. Sherman, Texas: Grayson County College, 1972. Prepared under a grant from the Texas Education Agency.

CONCEPT: Every career requires some special preparation.

CAREER CLUSTER: Hospitality and Recreation;

SUBJECT: Physical Education

UNIT: Lifetime Sports

Public Services

Performance Objective: During a "sport of the month" emphasis on lifetime sports, students will complete a project on careers related to the sport selected for emphasis

Any part of the life- 1.	LESSON CORRELATION
Any part of the life- l. Have students interview persons working on jobs	. SAMPLE ACTIVITIES
Bibliography of	RESOURCES

Any part of the life- 1. time sports unit

- related to the lifetime sport selected for the month.
 Include job qualifications, training needed, opportunities, interests, and work environment.
- 2. Have students write up interviews for the career column in the school new spaper, and/or begin a file of cassette tapes on various jobs related to lifetime sports for the library.
- 3. Invite resource persons from the community to visit physical education classes to discuss job roles, qualifications, and opportunities. Discuss how avocations can lead to occupations.
- 4. Make a tree chart listing all occupations related to the selected lifetime sport.

Bibliography of resource materials on lifetime sports from the Health and Physical Education Section, Texas Education Agency, 201 East IlStreet, Austin 78701

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Texas View. El Paso:
Texas Education Agency
and Region XIX Education Service Center.
(Descriptions of 300 occupations from the Occupational Outlook Handbook, relating them to Texas.)

Occupational Outlook Handbook

CONCEPT: Job specialization creates interdependency.

CAREER CLUSTER: Marketing and Distribution SUBJECT: Mathematics

UNIT: Graphing

Performance Objective: The student will be able to name five ways in which marketing and distribution depends on other career clusters.

LESSON CORRELATION		SAMPLE ACTIVITIES	RESOURCES
Construction and	:	Pass out magazines, newspapers, and advertising	Magazines, newspapers,
interpretation of graphs		pamphlets. Discuss how each product being advertised depends on other occupations.	pamphlets 1"
		,	Dictionary of Occupa-
	2.	Present bar or broken line graphs of sales records of salesmen. Let the students interpret and analyze	tional Titles. Vol. II.
		the data given on each graph.	D.C.: U.S. Department
			of Labor, 1965.(DOT)
	ω	Discuss the interdependency of marketing and dis-	į
		tribution careers and careers of other clusters.	Occupational Outlook
			Handbook. Bulletin
			1700. Washington, D.C.:
			U.S. Department of

Statistics, annual.

Labor, Bureau of Labor

CONCEPT: Job opportunities may be determined by supply and demand, where an individual lives, and/or by changing conditions.

CAREER CLUSTER: Construction

SUBJECT: Mathematics

UNIT: Geometry

Performance Objective: Given three occupations in the construction industry, the student will be able to name one reason that each occupation is in demand in a particular locality.

ÿ	2.	Geometric con- 1. structions and designs	LESSON CORRELATION
Bring pictures of both ancient and modern architectural designs to class. Discuss how these architectural designs relate to geometric designs studied	Discuss the changes in methods of construction in the last 20 years and how these changes have created new job opportunities.	Bring tools and materials of the construction industry to class. Discuss how the materials may be used according to supply and demand of particular jobs.	SAMPLE ACTIVITIES
Handbook	DOT Occupational Outlook	Construction tools, materials, magazines, architectural design books.	RESOURCES

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in mathematics. Compare changes.

CONCEPT: School subjects have significance in the area of career investigation.

CAREER CLUSTER: Business and Office
Occupations

SUBJECT: Mathematics

JNIT: Money and Banking

Performance Objective: After visiting a bank, the student will be able to name four ways bank employees use mathematics.

Computing interest	Deposits and with- drawals	Bank accounts	LESSON CORRELATION
from a local bank. Let the students practice filling in the necessary information.	2. Pass out bank deposit slips and blank checks obtained	 Plan a field trip to a local bank. Ask the students to observe how each bank employee uses mathematics. 	SAMPLE ACTIVITIES
Handbook (Deposit slips, checks	RESOURCES

 Request a resource speaker from a local bank to speak to the class about the necessity of mathematics in banking as a career and as a service to consumers.

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CONCEPT: School subjects have significance in the area of career investigation.

CAREER CLUSTER: Transportation

SUBJECT: Mathematics

UNIT: Measurement

Performance Objective: Given five occupations in the air transportation industry, the student will be able to state one way in which measurement is applied in each of the five jobs.

LESSON CORRELATION	SAMPLE ACTIVITIES	RESOURCES
Computation of air 1. travel by mileage	Pass out airline schedules, rate books, tickets, and baggage checks. In a discussion, investigate the use of the various measurements used to develop the above items. This discussion should explore other attributes that are measured and the measurements used by the air transportation industry.	Airline schedules, airline rate books, sample airline tickets, baggage claim checks, airline travel folders
2.	Review and examine the relation, distance equals	
	rate times time, $D = RT$, to see its use in the	Occupational Outlook
	schedules and operations of the airlines.	Handbook

CONCEPT: Understanding and accepting one's self is important throughout life.

CAREER CLUSTER: All clusters

SUBJECT: Mathematics

UNIT: Statistics

Performance Objective: The student will be able to list two methods by which he can develop a clear understanding of himself with regard to future career choices.

Bring several achievement tests for discussion of the purposes and uses of tests for self-assessment. Examine the mathematical formulas or strategies used to obtain each score. Ask the school counselor to speak to the class on the role of the counselor in helping students understand themselves with regard to future career choices. This may include examples of the mathematics necessary for the job.	2.	Compilation of statistics	
Guidance materials achievement tests, Kuder Preference Tests DOT Occupational Outlook	Ask the school counselor to speak to the class on role of the counselor in helping students understa themselves with regard to future career choices. This may include examples of the mathematics necessary for the job.	Bring several achievement tests for discussion of the purposes and uses of tests for self-assessme Examine the mathematical formulas or strategie used to obtain each score.	
21	DOT Occupational Outlook Handbook	Guidance materials, achievement tests, Kuder Preference Tests	

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Ask the students in cooperation with the counselor

that will illustrate the individual's areas of interests.

erence Test. Organize the results in a format

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

CAREER CLUSTER: Communications and Media Occupations

SUBJECT: Mathematics

UNIT: Probability

Performance Objective: The student will be able to list ways in which occupations in the telephone industry require different abilities and interests.

LESSON CORRELATION	SAMPLE ACTIVITIES	RESOURCES
Simple probability 1.	Bring a nonoperating telephone to class. Discuss all	Pamphlets
Number combina- tions		s DOT
2.	Bring literature to class showing the wide variety	Occupational Outlook Handbook
	of occupations available in the telephone industry.	

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different abilities needed by the various workers. ing these many numbers manageable. Discuss the Investigate the jobs of people and machines in keep-Plan a field trip to the local telephone company.

Ç

duplication of numbers?

When area codes are included, will there be any

CONCEPT: Related occupations are grouped in clusters.

CAREER CLUSTER: Public Services

SUBJECT: Mathematics

UNIT: Sets

Performance Objective: The student will be able to list two occupations which may be grouped under the public services cluster.

							notation	Set definition and l	LESSON CORRELATION
	tions.	to use set notation to indicate this group of occupa-	tions that relate to public service. Ask the students	material and ask them to form the set of occupa-	tional Titles. Provide the students with research	occupations as listed in the Dictionary of Occupa-	On another listing give the students 50 random	l. Give the students a listing of the 15 career clusters.	SAMPLE ACTIVITIES
Employment Commission	Speaker from the Texas		Handbook	Occupational Outlook		DOT		List of career clusters	RESOURCES

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Speaker from the Texas
Employment Commission
or a commercial employment agency

CONCEPT: An understanding and acceptance of self is important throughout life.

CAREER CLUSTER: All Clusters

SUBJECT: Language Arts

UNIT: Composition

Performance Objective: As a result of writing about himself and discussing himself with a classmate, predominant interests and abilities. the student will be able to determine his view of himself by listing his

LESSON CORRELATION		SAMPLE ACTIVITIES	RESOURCES	
Composition	ŀ.	Have the students state in writing what types of persons they think they are, what they like to do, what their	Check sheets for students	
Group discussion skills		strengths and weaknesses are, and what they might like to do for a career someday.	Textbooks	
Development of self-inventories	?	Have students select three items from their composition that they would like to discuss with fellow students.	Resource books	24
Organization of lists according	ب	Lead class in discussion of the relationship of interests and abilities to various occupations.		
to priorities	4:	Have each student list several occupations that relate		

to his own interests and abilities.

CONCEPT: Every career requires some special preparation.

CAREER CLUSTER: Fine Arts and Humanities; Hospitality and Recreational; Communications and Media

Performance Objective: As a result of conducting research concerning a "glamorous" occupation,

SUBJECT: Language Arts UNIT: Paragraph
Development

conditions, and personal attributes associated with the occupation. the student will be able to describe the training, income, working,

	Writing in a daily journal	Paragraph devel- opment and organi- zation	Individual book reports 2.	CORRELATION Spelling 1.
Training requirements Income Working conditions Personal attributes Life style as affected by "glamorous" occupations	ing points in the research:	writing a letter to someone in the profession, watching talk shows on television, or conducting interviews. Have the students include the follow-	Have each student select one occupation to explore	SAMPLE ACTIVITIES Have the students make a list of "glamorous" occupations, such as professional athletics, acting, and
		of Labor, 1965. (DOT)	Dictionary of Occupational Titles. Vol. II. 3rd ed. Washington,	RESOURCES 15 Biographies

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CONCEPT: Related occupations are grouped in clusters.

CAREER CLUSTER: Construction

SUBJECT: Language Arts

UNIT: Language Usage

Performance Objective: The student will be able to name and describe at least ten jobs in the construction industry.

CORRELATION	LESSON
SAMPLE ACTIVITIES	
KESOOKCES	naconnocio

Sentence structure 1.

observe various jobs.

Take a field trip to a construction site nearby to

Forms of letters

Formal and informal English

w ? a number of jobs in the construction industry. Have the students identify and list on the chalkboard Have the students bring pictures depicting each of the

jobs identified and place them on the bulletin board.

Have each student write a letter requesting information concerning one of the jobs identified. Then have

students exchange and answer each other's letters.

4.

 Have each student develop a game matching job descriptions with job titles.

Vestal, Theodore M., and Baker, Neal A., Jr. An Analysis of Fifteen Occupational Clusters Identified by the U.S. Office of Education. Sherman, Texas: Grayson County College, 1972. Prepared under a grant from the Texas

Education Agency.

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A manual of standard English usage

Slang dictionary

Job opportunities may be determined by where one lives, by supply and demand, or by changing conditions.

CONCEPT:

CAREER CLUSTER: All Clusters SUBJECT: Language Arts

Travel

Performance Objective: The student will be able to describe how geographic locations affect job opportunities and avocational interests.

Travel magazines,	l. After reading a selection dealing with a place to visit,	:	Nonfiction travel
RESOURCES	SAMPLE ACTIVITIES		LESSON CORRELATION

selections

- available in that area and tell why. have the students make a list of jobs that might be
- opportunities. tion them about that area with emphasis on job place they read about. Have the other students ques-Have the students pretend they are residents of the

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- ယ agency to speak to the class concerning the relationship of geography to jobs. Employment Commission or a commercial employment Invite a representative from the local office of the Texas
- 4. are related directly to the area. Have students write a travel feature article describing predominant occupations, and specific avocations that a selected geographical location, including the industries,

Magazine National Geographic

travel folders

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Speaker from the commercial employ-Commission or a Texas Employment ment agency

CONCEPT: Investigate experience helps improve knowledge about careers.

CAREER CLUSTER: All Clusters SUBJECT: Language Arts UNIT: Verbal and Nonverbal Essays

Performance Objective: The student will be able to present the skills and techniques required by an occupation that interests him by means of a written, oral, or visual essay.

0	writing dialog Collages	Mechanics of	informal language	Formal and	Photography	LESSON CORRELATION
	·		i٥			
Type of work Working conditions Types of people the worker dealt with Tools of the trade	Have the students give a demonstration of what they saw, such as:	dents may prepare written or oral essays.	Have each student, or a team of students, take pictures	dent may be interested in.	Have each student visit a place in the community where he can observe someone involved in a career the stu-	
	Cameras	Textbooks	English usage	A manual of standard	pictures	RESOURCES

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4.

CONCEPT: Job specialization leads to interdependency.

CAREER CLUSTER: All Clusters

SUBJECT: Language Arts

UNIT: Independent Reading

Performance Objective: The student will be able to identify all people upon whom he depended for development of a research report.

LESSON CORRELATION	SAMPLE ACTIVITIES	RESOURCES
Reading for a	 Have each student select a study topic that deals 	Brochures, pamphlets,
purpose	with careers, utilizing brochures, pamphlets, news-	newspapers, magazines,
•	papers, magazines, and books concerning careers.	and books concerning
Current reports		careers.
•	2. Have the students turn in a written evaluation of their	
Evaluation	independent study projects listing the people who contributed to their study.	Reference books
Research tech-		Library resource room
niques		

CONCEPT: School subjects have significance for career exploration.

CAREER CLUSTER: Communications and Media; Business and Office Occupations SUBJECT: Language Arts UNIT: Vocabulary Development

Performance Objective: The student will be able to list 15 occupations in the field of communications and identify some of the vocabulary unique to each occupation.

LESSON CORRELATION		SAMPLE ACTIVITIES	RESOURCES
Vocabulary study	ı.	As part of the word study unit, guide the student in making a list of occupations in the field of communications.	DOT
Keeping a note-)		Bulletin board materials
000%	į	play illustrating the occupations that are related to	Resource person from
Relating pictorial		language arts.	local community
meaning	ω •	Have students, through interviews with people they	;
(know, make specialized vocabulary lists unique to	
Spelling		their occupations.	

4.

CONCEPT: Investigative experiences help improve knowledge about careers.

CAREER CLUSTER: Communications and Media SUBJECT: Industrial Arts Drafting

UNIT: Working Drawings

Performance Objective: The student will be able to list five characteristics of the job and the life style of the draftsman.

LESSON	SAMPLE ACTIVITIES	RESOURCES	ı
The proper use of 1.	Discuss with the class the duties of a draftsman.	Drafting instruments	
drafting instruments 2.	Invite a draftsman to talk to the class regarding his	Drafting paper	L
Drawing three	job and the influence of the job upon his life style.		3:
views of an object		Drafting manuals from	
·ω.	Have a class decide upon a project which each student	industry	
Dimensioning a	will draw the plans for and later build in the woodwork-		
drawing	ing laboratory.	Guest speaker from	
Q		industry	
4.	Make sketches of the project to give to each student.		
		Woodworking laboratory	
5.	Have each student make a set of working drawings		
	from an engineer's sketch.		

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CONCEPT: Job specialization creates interdependency.

CAREER CLUSTER: Manufacturing SUBJECT: Industrial Arts UNIT: Mass Production

Performance Objective: The student will be able to perform one specialized task in a simulated manufacturing enterprise in cooperation with other students also performing specialized tasks.

LESSON CORRELATION		SAMPLE ACTIVITIES	RESOURCES
Study of industrial		Organize a simulated corporation to mass produce note	Textbooks
constructing a			Guest speaker in
project	2.	Identify the jobs that are included in the mass production of the note pads and analyze the tasks involved in each job.	manufacturing
Custom produc-			Applicationforms
tion and mass	ω	Invite a representative of a manufacturing firm to talk to the class regarding mass production in relation to	Suitable materials
Characteristics		our economic system.	for constructing note pads
of mass production	4.	Have students filloutapplications for positions they wish to fill in the simulated corporation.	Appropriate supplies,
	, a	Have the enterprise produce one note pad for each student in the class.	for construction of the note pads
	6.	Upon the completion of the unit of study, have the students	

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tasks in their simulated corporation and their like or diswrite a paragraph explaining the reasons for specialized

like for the particular tasks they performed.

CONCEPT: Job specialization creates interdependency.

CAREER CLUSTER: Fine Arts and Humanities SUBJEC

SUBJECT: Choral Music

UNIT: The Suite as a Musical Form

Performance Objective: Given one occupation from each job family within the fine arts cluster, the student interests, attitudes, and values. will be able to name one way in which each occupation requires different abilities,

Music for Nutcracker Suite Costumes, stage props, lighting, piano Dictionary of Occupational Titles. Vol. II. 3rd ed. Washington, D. C.: U.S. Department of Labor, 1965. (DOT Occupational Outlook Handbook. Bulletin	field trip and discuss the differing abilities, interests, attitudes, and values exhibited. Have students investigate interdependency of these jobs.	teer, involved in a musical stage production. 4. Have the students list all the jobs observed on the	3. Have the students visit the local community theater	into the historical Suite and develop a stage play. development of famous musical 2. Have students rehearse the Nutcracker Suite.	n l. Have the students research the story of the Nutcracker	LESSON CORRELATION SAMPLE ACTIVITIES	
33	•		ĩ	Suite Costumes, stage props,	Nutcracker Music for Nutcracker	RESOURCES	

annual.

ment of Labor, Bureau of Labor Statistics,

CONCEPT: Job specialization creates interdependency.

CAREER CLUSTER: Communications and Media SUBJECT: Choral Music

UNIT: Tape Recording

Performance Objective: The student will be able to explain how jobs in the sound recording industry are interdependent.

LESSON CORRELATION		SAMPLE ACTIVITIES	RESOURCES
History of record- ing instruments		Have the students collect pictures of recording instruments throughout history.	Materials for record-ing
Development of fidelity of sound in recordings	?	Play a 78 rpm record and a recent stereophonic record. Have the students compare the quality of the recordings.	род 34

- ω on completion of their own tasks. various job responsibilities related to the recording Have the students, as a class project, produce a tape of their own. The students should be assigned industry. Have students list the jobs that depended
- 4. various jobs found in the recording industry. recording studio. Plan a field trip to a local radio or television or Ask the students to observe the

CONCEPT: Individuals differ in interests, abilities, attitudes, and values; therefore, understanding oneself is important.

CAREER CLUSTER: Fine Arts and Humanities S

SUBJECT: Art

UNIT: Mask-Making

Performance Objective: The student should be able to state at least one way art facilitates self-expression.

LESSON CORRELATION	SAMPLE ACTIVITIES	RESOURCES
Masks as a cultural 1.	Plan a field trip to a local museum. How does art depict	Masks and pictures
artifact	various attitudes and values of people?	of masks
Processes used in 2.	Pass out pictures of masks from past civilizations and	Opaque projector
constructing masks	discuss how they were used as forms of self-expression.	
		Materials for making
Design, texture 3.	Show pictures of African masks under an opaque	masks
color, shape, and	projector and discuss the types of masks and the	
patterns in masks	emotions expressed or portrayed.	Dictionary of Occupa-
		tional Titles.
Self-expression 4.	Have each student design and make his own mask	Vol. II. 3rd ed.
through mask-	and let others discuss what the mask expresses.	Washington, D.C.:
making		U.S. Department of
5.	Display masks made by other students from previous	Labor, 1965. (DOT)
	years.	Occupational Outlook
6.	Lead class in a discussion of artistic self-expression	Handbook. Bulletin
	in occupations and avocations.	1700. Washington,
		D. C.: U.S. Department
		of Labor, Bureau of

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Labor Statistics, annual.

CONCEPT: School subjects have significance in the area of career exploration.

CAREER CLUSTER: Fine Arts and Humanities

SUBJECT: Art

UNIT: Lettering

Performance Objective: Given two occupations in advertising art, the student should be able to explain how lettering is necessary in each of the jobs.

		Creative lettering	Signs and symbols	Basic lettering skills	LESSON CORRELATION
4,	ω.		?		
samples of lettering. Have the students do sample pages of lettering in several styles.	Have the students compare handmade and commercial	ing art and about necessary preparation for such jobs.	Ask a resource speaker from a local advertising agency to speak to the class about job opportunities in advertis-	Discuss with the students the historical development of lettering.	SAMPLE ACTIVITIES
Pen substitutes (flat sticks, dowels, bamboo joints)	ing	Materials for letter- ·		•	RESOURCES
	samples of lettering. Have the students do sample pages of lettering in several styles.	Have the students compare handmade and commercial samples of lettering. Have the students do sample pages of lettering in several styles.	 ing art and about necessary preparation for such jobs. 3. Have the students compare handmade and commercial samples of lettering. 4. Have the students do sample pages of lettering in several styles. 	 Ask a resource speaker from a local advertising agency to speak to the class about job opportunities in advertising art and about necessary preparation for such jobs. Have the students compare handmade and commercial samples of lettering. Have the students do sample pages of lettering in several styles. 	 Discuss with the students the historical development of lettering. Ask a resource speaker from a local advertising agency to speak to the class about job opportunities in advertising art and about necessary preparation for such jobs. Have the students compare handmade and commercial samples of lettering. Have the students do sample pages of lettering in several styles.

CONCEPT: Investigative experiences help improve knowledge about careers.

CAREER CLUSTER: All Clusters SUBJECT: Texas History and Geography

UNIT:

opment of Texas Economic Devel-

Performance Objective:

The student will be able to describe the preparation needed for a specific occupation.

. What the job title or specialty is . What special preparation was reconstruction How the worker feels about being occupation . What the job environment is like	Local community 1. Have each student interstudies the conversationin his	CORRELATION SAM
What the job title or specialty is What special preparation was required How the worker feels about being in that occupation What the job environment is like	Have each student interview a workerand record the conversationin his community to determine:	SAMPLE ACTIVITIES
Community workers	Looseleaf notebook or file card box	RESOURCES

? kind of work. giving reasons he would or would not be interested in that be interested in pursuing a career in that direction and regarding what he has learned, to include whether he might Have each student make a verbal presentation to the class

for advancement

What additional training, if any, is required

data for the entire class on note cards or looseleaf paper so that it may be placed Have each student write the information he has gathered in a class notebook or file box as important reference

'n

CONCEPT: Related occupations are grouped into clusters.

CAREER CLUSTER: All Clusters SUBJECT: Texas History and Geography

of Resources Conservation

Performance Objective: The student will be able to list by clusters occupations needed

to solve a conservation problem in Texas.

	Conservation of Texas resources	LESSON CORRELATION
2. Invite a conservationist or appropriate individual who is familiar with that particular problem to speak to the class about the problem, the kinds of workers needed to improve the situation, and the methods and techniques that would be employed to solve the pro-	Have the students look into conservation problems in their area of the State and choose one problem for a class project.	SAMPLE ACTIVITIES
structing a model of the project (C) Information or speakers available from:	County agricultural agent Materials for con-	RESOURCES

ယ cluster(s) to which these workers belong. relationship of the workers needed and the career Have the students make a chart showing the inter-

4 ments. roles each will play in attempting to make improve-(perhaps a sand table) and decide which occupational Have the students then create a model of the project

College Station 77843 Texas A & M University, Texas Forest Service,

Building, Austin 78701 John H. Reagan life Department, 100 Texas Parks and Wild-

ment Board, 301 West 78711 Second Street, Austin Texas Water Develop-

(Upon completion of the project, the students might invite the speaker back to the class to critique the project.)

Texas Water Quality Board, 1108 Lavaca, Austin 78701.

U.S. Geological Survey,
Department of the Interior,
306 East Eighth Street,
Austin 78701

Bureau of Economic Geology, The University of Texas at Austin, Austin 78712

U.S. Soil Conservation Service, First National Bank Building, Temple, Texas 76501

CONCEPT: Investigative experience helps improve knowledge about careers.

CAREER CLUSTER: All Clusters SUBJECT: Texas History and Geography SNIT: Natural Regions of Texas

Performance Objective: The student will identify the basic skills required to perform the jobs in one of the geographical regions of Texas.

'n	2.	The Gulf Coast 1. Plain	LESSON CORRELATION
Have students provided with an opportunity to observe and interview at least two persons who are engaged in the work of the occupations studied via field trips and/or guest speakers.	Have each student share with the class what he has learned through investigation of an occupation prevalent in that area.	Have students choose and investigate one of the occupations involved in production and transportation of the crops in the Gulf Coast Plain.	SAMPLE ACTIVITIES
Resource person Field trips	D.C.: U.S. Depart- ment of Labor, Bureau of Labor Statistics, annual.	Occupational Outlook Handbook. Bulletin 1700. Washington,	RESOURCES

CONCEPT: School subjects have significance for career exploration.

CAREER CLUSTER: All Clusters

SUBJECT: Texas History and Geography

UNIT: Problems and Progress since

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Performance Objective: The student will be able to specify which school subjects are necessary for successful performance in two occupations.

tating State progress	Study of individuals who were instrumental infacili-	LESSON CORRELATION
2.	1.	
Have the students make a list of the school subjects which were necessary to the success of the persons whose careers are being investigated.	Have students investigate the careers of notable Texans who were instrumental to the economic progress of the State of Texas from the 1920s through today.	SAMPLE ACTIVITIES
	Biographies of individuals being studied	RESOURCES

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ω ·

successful in that career.

Have each student project a career needed in Texas today

and list the school subjects he would need in order to be

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

CAREER CLUSTER: All Clusters SUBJECT: American History

SNIT:

Growth of

America

Democracy in

Performance Objective: The student will be able to discuss why people have particular attitudes and values and be able to compare attitudes and

values of the past with those of the present.

Reform move-	LESSON
: -	
Discuss American reform movements and generally	SAMPLE ACTIVITIES
Reference materials	RESOURCES

ments and their 2 chosen reformer in depth for greater understanding of would like to portray. Each student should study his that person's attitudes and values during a period of Have half the class choose noted reformers they such movements. define some of the attitudes and values apparent in

leaders

ω · observers, will discuss the merits of the attitudes and values displayed after each portrayal. reformers who will be portrayed and that they, as Inform the other half of the class of the particular

the Nation's history.

4. observers' comments they represent. Allow time for rebuttal to the tional roles are, and give their views on the issues Have the "portrayers" indicate what their occupa-

Chalkboard and chalk

on reformers

After all portrayals have been completed, have students

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- discuss how occupations of the reformers related to their attitudes and values;
- which were shown during the portrayals;
- compare them with the attitudes and values they feel are prevalent in today's American society and with some of their own individual attitudes and values.

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CONCEPT: Job opportunities may be determined by where one lives, by supply and demand, or by changing conditions.

CAREER CLUSTER: All Clusters SUBJECT: American History CNIT: The Industrial Revolution

Performance Objective: The student will be able to describe the relationship of location and supply and demand to occupational opportunities.

		The industrial North vs. the agricultural South	LESSON CORRELATION
ω.			
Have each group discuss their jobs with the other group. If any group member is dissatisfied with the job opportunities in his area, he may switch to the other group. However, he may switch only if he can devise a means of moving himself and his family to the other area, using the modes of transportation available to him, and if he can find an area with a demand for the job he wants during that particular era.	Have each student in the groups select an occupation that was available in his region and discuss with his group members the supply and demand for that job during that era.	After discussing the Industrial Revolution, divide the class into two groups, one representing the South and one representing the North.	SAMPLE ACTIVITIES
	Pertinent audiovisuals may be used to facilitate implementation of the activities.	References for deter- mining supply and demand for jobs during the 1800s.	RESOURCES

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4.

the conditions then as compared to the conditions today. Lead the class in a discussion on the similarities of

CONCEPT: An understanding and acceptance of self is important throughout life.

CAREER CLUSTER: All Clusters SUBJECT: American History

Performance Objective: The student will be able to express the relationship between self-knowledge and wise career decisions.

UNIT: Industrialization
of America and
Its Impact on
People

			Problem of job dissatisfaction	LESSON CORRELATION
4.	·ω	2	1.	
Have volunteer students write a role-playing skit which depicts how and why some people make wise career decisions and others do not.	Have each student compare his list of likes and dislikes to his three job specialties and determine whether he would be satisfied with performing any of them. Counselor assistance is suggested.	Have students then make a list of personal likes and dislikes, such as doing things with their hands, being indoors, and following orders.	After discussion of recent reports of social changes and the new opportunities available today, have students select three occupations which appeal to them.	SAMPLE ACTIVITIES
		Textbooks	Teacher/counselor assistance for activities and 4 if necessary	RESOURCES

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acters understood themselves and how their self-understand-

ing or lack of it influenced the choices they made.

At the conclusion of the role-playing session, have the students discuss their perceptions of how well the char-

Have the students enact the script.

6. 5.

CONCEPT: Job specialization leads to interdependency.

CAREER CLUSTER: All Clusters

Performance Objective: The student will be able to illustrate two occupations

dealing with mass production.

CNIT: The United States **Industrial Nation** Becomes a Great

SUBJECT: American History

	LESSON CORRELATION
	SAMPLE ACTIVITIES
Occupational Outlook	RESOURCES

of corporations and the growth Mass production 2

- :in which they have some interest after discussion of Have the students indicate a particular job specialty rnass production and job specialization.
- specialty. Two or more students may work together the other job specialties which are related to his Have each student study his chosen job specialty in drawings in constructing their charts. tion, students may use pictures from magazines or if their job specialties are interdependent. In addidepth and make a chart which indicates his job and
- w specialties. their particular specialty is dependent upon other charts to the class, giving a verbal explanation of how Have each student or group of students present their
- 4 Have the students' charts used for display in the classroom or for a school display on career education.

D.C.: U.S. Department of Labor. R... Handbook. Bulletin Labor Statistics, annual.

scissors, magazines Poster board, paste,

CONCEPT: Related occupations are grouped into clusters.

CAREER CLUSTER: All clusters SUBJECT: Life Science

UNIT: Food

Performance Objective: Students will be able to identify job specialties by groups and titles and compare them with those codified by various sources.

CORRELATION SAMPLE ACTIVITIES	RESOURCES
Measuring energy 1. Students in small groups will write a menu for either a in food low-carbohydrate, high-protein, low-calorie, or high-calorie count for	or either a Textbooks and labora- rie, or high-tory manuals

consumer. to the meal. Have students list and group the job specialties related NOTE: Consider chain from producer to

contained in foods number of calories Determining the

?

each meal.

ယ labeled on transparency film. Have a student recorder list jobs as they were grouped and

4. group members as compared to those codified by various sources. Have the class as a whole evaluate those listed by small-

Vestal, Theodore M.,

47

Jr. An Analysis of and Baker, Neal A., from the Texas Educa-Clusters Identified Fifteen Occupational tion Agency. Prepared under a grant County College, 1972. Texas: Grayson by the U.S. Office of Education. Sherman,

Equipment and supplies

CONCEPT: Every career requires some special preparation.

CAREER CLUSTER: Agri-business and Natural Resources; Hospitality and Recreation; Public Services; Environment Control; Construction

SUBJECT: Earth Science

UNIT: The Earth's Surface

Performance Objective: The student will be able to identify one or more differences in preparation requirements given for selected occupations

	LESSON
transka students select from various clusters job	SAMPLE ACTIVITIES
Textbooks and	, RESOURCES

topographic Introduction to

mapping

- : specialists that would utilize topographic mapping Have the students select from various in their work.
- for each occupation selected. Have the students research preparation requirements

2

- Ψ of the occupations selected. one difference in preparation requirements for each Have the students identify at least one similarity and
- 4. on the chalkboard under the proper cluster. Have class members list all job specialists selected
- Ç specialty. List preparation requirements next to each job

laboratory manuals

Equipment and supplies

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of Labor, 1965. (DOT) Washington, D.C.: U.S. Department pational Titles. Vol. II. 3rd ed. Dictionary of Occu-

and Baker, Neal A. Jr. An Analysis of Fifteen Occupational Vestal, Theodore M., Sherman, Texas: of Education. by the U.S. Office Clusters Identified

Have students discuss with the class the items they put on the board.

6.

7. Have students add to the list on the board as new units are studied.

Grayson County
College, 1972. Prepared under a grant
from the Texas Education Agency.

Resource people

50

CONCEPT: Job opportunities may be determined by where one lives, supply and demand and/or by changing conditions.

CAREER CLUSTER: Agri-Business and Natural

SUBJECT: Earth Science

UNIT: Earth's Cycles

Resources; Manufacturing; Transportation

Performance Objective: The student will be able to chart four or more job specialties directly

they may exist 50 years in the future. specialties to jobs of the area as they existed 50 years ago, and as related to geographic characteristics of the area and compare these job

4. Ha	3. Ha mo	2. Ha or to	Changing nature 1. Ha of the earth's the surface of	LESSON CORRELATION	
Have the students note the similarities and differences	Have students construct a data chart for the four or more job specialties identified above.	Have students identify from the data collected four or more job specialties or avocations directly related to the geographic conditions.	Have individual students or small groups collect data throughout the selected geographical area over a period of time.	SAMPLE ACTIVITIES	
Texas Education Agency	Occupational Clusters Texas View. El Paso:	DOT	Textbooks and laboratory manuals Equipment and supplies	RESOURCES	

consequence of the similarities and differences they Have students state the major reason and major note.

5

sequences

for the differences and similarities and state the con-

(Descriptions of 300 tion Service Center. occupations from the them to Texas.) Handbook, relating Occupational Outlook

- Have students make generalized statements based upon information they have gained about these jobs.
 - Resource people
- 7. Have students classify the jobs listed as those which existed 50 years ago and those which did not.
- 8. Have students write short narratives explaining why certain jobs have continued, others disappeared. What jobs that disappeared are now avocations?
- 9. Have students anticipate which jobs will be obsolete and what new jobs will exist during the next 50 years, based on what they have learned about the changing earth conditions.

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CONCEPT: School subjects have significance for career exploration.

CAREER CLUSTER: Communications and Media; Environment Control; Transportation

SUBJECT: Earth Science

Performance Objective: Students will be able to present arguments supported the Mississippi River to arid areas of the Southwest. with scientific data for or against diverting water from

> ment, The Hydrosphere, UNIT: Earth's Crust Redesigned Man and the Environ-

Man and the 1. Ha	LESSON CORRELATION
Have students interview by phone or in person Water Control Board members, U.S. Conservationists,	SAMPLE ACTIVITIES
Earth science textbook	RESOURCES

need or lack of need for the proposed project. industrial environmentalists, to gain insight into the National Wildlife Service personnel, biology teachers, Control Board Intelliners, C.C.

Laboratory manual

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Equipment and supplies

Free materials from:

Service, First National

U.S. Soil Conservation

Bank Building, Temple,

of the water project in cluster categories

Have class discuss the jobs required for construction

must assume when

Ψ

Responsibility man

Running water

2

the environment. major changes in he decides to take Mass movements

and the area that would be deprived of the water by the which might occur in the topography, climate, animal Have class discuss their predictions of the changes construction of the project. life in the areas where the water would be furnished

John H. Reagan Build-Texas 76501 life Department, 100 Texas Parks and Wild-

skills, graphic arts, debate, planning and research, groups. Strengths should include communications utilizing special strengths of the members of the Have students organize a TV production company data graphing.

4.

ing, Austin 78701 Austin 78701 Texas Water Quality Board, 1108 Lavaca,

		CORRELATION
. 6	5.	
Have students develop charts, graphs, slides to support their case	Have teams research and organize data which supports their hypothesis for or against the water project.	SAMPLE, ACTIVITIES
Poster board, video- tape recorder and camera, slide projec-	Resource people from the community	RESOURCES

other classes.

Have students present program for other related science classes or videotape and present to

tor

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

CAREER CLUSTER: Construction; Transportation; Manufacturing SUBJECT: Physical Science

> UNIT: Motion, Force, and Conservation Laws

Performance Objective: Students will be able to relate specific abilities needed for jobs listed among the construction, manufacturing and transportation clusters.

	Relationship of voik on an object to the energy gained by the object	LESSON CORRELATION
<u>ω</u> .	•	
Have the students classify the 30 jobs selected by the major type of ability needed (physical, mental, mechanical, creative, social, other). Have the students classify the jobs requiring major physical ability according to physical endurance, muscular coordination, or manual dexterity. Have them determine those requiring major mental ability according to physical endurance,	Have the students identify about 50 jobs that involve some form of energy discussed in the lesson correlation as a major element of the job specialty; i. e., carpenters, mechanics, watchmakers, truck drivers, lumbermen, from the occupations listed among the transportation, construction and manufacturing clusters. (A laboratory	SAMPLE ACTIVITIES
Vestal, Theodore M., and Baker, Neal A., Jr. An Analysis of Fifteen Occupational Clusters Identified by the U.S. Office of Education. Sherman, Texas: Grayson County College, 1972. Prepared under a grant from the Texas Education Agency.	book Laboratory manual Equipment and supplies	RESOURCES

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are most suited to their abilities and interests. Have students select three job specialties they feel

4.

CONCEPT: Investigative experiences help improve knowledge about careers.

CAREER CLUSTER: Public Service; Health; Commu- SUBJECT: Physical Science nications and Media; Marine Science

UNIT: Scientific Processes

Performance Objective: The student will be able to apply observation and interpretation skills to an television program. investigation of job specialties and career clusters as identified on a current

2.	ing between an obser- vation and an infer- ence	vation into an infer- Example: ence and distinguish-	Extending an obser-	!	Observation and 1. Have stu	LESSON CORRELATION
Have students select one or more scenes to observe and record the scientific processes.	The Men - Journalism	Marcus Welby Owen Marshall	major element in the role specification.	which the main character uses investigation as a	Have students select a current television series in	SAMPLE ACTIVITIES
Identified by the U.S. Office of Education.	An Analysis of Fifteen Occupational Clusters	Home television 5	Laboratory manual	book	Physical science text-	RESOURCES

- Have students evaluate the realism and logic of the process utilized.
- 4. Have students identify the job specialties observed or inferred during the telecast and record these on a chart.
- 5. Have students record the cluster afte: each job identified on the same chart.
- Have students display their findings on the overhead projector for reactions from the class.
 48