DOCUMENT RESUME

ED 180 743 SE 029 303

AUTHOR Wickens, David L., Ed.
TITLE Course of Study for Grades Kindergarten Through Twelve, 1979-1981.
INSTITUTION California State Dept. of Education, Sacramento.
PUB DATE 79
NOTE 285p.; Not available in hard copy due to copyright restrictions; Photographs may not reproduce well
AVAILABLE FROM Publications Sales, California State Dept. of Education, P.O. Box 271, Sacramento, CA 95802 (no price quoted)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Curriculum; *Curriculum Development; Curriculum Guides; *Educational Objectives; *Elementary Secondary Education; *Instruction; Interdisciplinary Approach; *State School District Relationship; State Standards; *Statewide Planning

ABSTRACT

Presented is a resource guide designed for use in program planning at the school district level. The course of study provides an overview of the goals and objectives for 19 curriculum areas from kindergarten through twelfth grade in California. Four of these areas are described both separately and as they are infused into other areas. An overview of commonalities among the goals of the 19 curriculum areas is presented. Each curriculum area is defined in terms of goals and objectives and other descriptive material. The descriptive material includes a point of view to provide background information, vignettes, goals, objectives, samples of learner behaviors, and professional associations and their publications. Instructional strategies are suggested in a limited way. Curriculum areas included are art, bilingual-cultural, business, career, consumer, drama/theatre, language arts, environmental, foreign language, health, home economics, industrial arts, mathematics, multicultural, music, physical education, science, social sciences, and traffic safety. (BT)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED180743

COURSE OF STUDY

FOR

GRADES KINDERGARTEN THROUGH TWELVE

1979-1981

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

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Theodore R. Smith

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PROJECT STAFF

Manager
Belle Ruth Witkin
Administrator, Research and Development
Alameda County Office of Education

Editor
David L. Wickens
Educational Writer, Research and Development
Alameda County Office of Education

Published June 1979
Alameda County Office of Education
Robert C. Coney, Superintendent
Instructional Services Division
Harley L. Sorensen, Assistant Superintendent

SE 029 303

EDITORIAL BOARD

Members of California State Steering Committee for Curriculum and Instruction:

David Austin
Assistant Superintendent, Instruction
Office of the Merced County Superintendent of Schools

John Hunt
Assistant Superintendent, Instructional Services Division
Office of the San Diego County Superintendent of Schools

Marvin Locke
Associate Superintendent
Office of the Tehama County Superintendent of Schools

Grant Thayer
Director, Curriculum and Instructional Services
Office of the Los Angeles County Superintendent of Schools

Representatives from Potential User Groups:

Rhoda Immer
Consultant
Office of the Siskiyou County Superintendent of Schools

Betty Pacheco
Principal, Memorial High School
Newark Unified School District

Helen Wallace
Assistant Superintendent, Educational Services
Cotati-Rohnert Park Unified School District

The Course of Study was developed as a project of the State Steering Committee for Curriculum and Instruction. The present edition is published jointly by the boards of education of the following counties:

Alameda	Humboldt	Mendocino	San Bernardino	Solano
Alpine	Imperial	Merced	San Diego	Sonoma
Amador	Inyo	Modoc	San Joaquin	Stanislaus
Butte	Kern	Mono	San Luis O' po	Sutter
Calaveras	Kings	Monterey	San Mateo	Tehama
Colusa	Lake	Napa	Santa Barbar	Trinity
Contra Costa	Lassen	Nevada	Santa Clara	Tulare
Del Norte	Los Angeles	Orange	Santa Cruz	Tuolumne
El Dorado	Madera	Placer	Shasta	Ventura
Fresno	Marin	Riverside	Sierra	Yolo
Glenn	Mariposa	San Benito	Siskiyou	Yuba

ACKNOWLEDGMENTS

The project manager and editor would like to express appreciation for the professional contributions of all those listed below; and for the thoughtful comments made by the hundreds of people who reviewed successive drafts of the chapters, whose names cannot be included here.

CONTRIBUTORS

Art
*C. Vincent Campi
Office of the Merced County Superintendent of Schools
Kay Wagner
Office of the Fresno County Superintendent of Schools

Bilingual
*Josephine Talamantes Herrera
Stockton Unified School District
Dena Chapa Rupert
Stockton Unified School District

Business
Patricia Whitman
Office of the Los Angeles County Superintendent of Schools

Career
Walter Gembica
Office of the Los Angeles County Superintendent of Schools
Jerry Miller
Office of the San Diego County Superintendent of Schools
*Edwin Whitfield
Office of the San Diego County Superintendent of Schools
Patricia Whitman
Office of the Los Angeles County Superintendent of Schools

Consumer
Grace Hibma
Office of the Los Angeles County Superintendent of Schools

Drama/Theatre
*Fleda Evans
California Educational Theatre Association
Virginia Willems
California State University, Hayward

English Language Arts
Julia Gottesman
Office of the Los Angeles County Superintendent of Schools
Edith Schwartz
Tahoe Elementary School, Sacramento
*Sandra Seale
Solano State College
Natalie Weber
Homestead High School, Cupertino

Environmental
Rudolph J. H. Schafer
California State Department of Education

Foreign Language
James Garvey
Acalanes High School, Lafayette
*Carol Sparks
Foothill Intermediate School, Walnut Creek

Health
Em Riggs
California State Department of Education
*Claudia Sampson
Office of the San Mateo County Superintendent of Schools
Stanley Shalit
Office of the Alameda County Superintendent of Schools

Home Economics
Pat Campbell
Curriculum for Parenthood Education, San Ramon Valley Unified School District

Industrial Arts
*Ed Butler
San Jose Unified School District
John Scott
Fairfield High School, Fairfield

Mathematics
*Sam Dolber
Office of the Merced County Superintendent of Schools
Bob McFarland
Office of the Alameda County Superintendent of Schools

Multicultural
John Brown
Office of the San Diego County Superintendent of Schools
Joe Bonita Perez
Office of the Los Angeles County Superintendent of Schools
*Frances Rilloraza
Stockton Unified School District

Music
Eloise Haldeman
Beverly Hills Unified School District
*Dorothy Wilson
California State University, Chico

Physical Education
Carol Clark
Office of the Los Angeles County Superintendent of Schools
*Lou Mozzini
Office of the San Diego County Superintendent of Schools

Science
Donald Lundstrom
Office of the Alameda County Superintendent of Schools
*Richard Merrill
Mt. Diablo Unified School District
Norma Wilbur
Office of the Los Angeles County Superintendent of Schools

Social Sciences
*Elizabeth A. Pellett
Office of the Los Angeles County Superintendent of Schools
Doris Prince
Office of the Santa Clara County Superintendent of Schools

Traffic Safety
Frank Bennett
California State Department of Education

*Designated chairpersons

Publication Staff
Alameda County Office of Education
John O'Lague, Administrator
Douglas Arthur
Jaime Leon-Guerrero
Cynthia Price
John Quach
Charles West

Manuscript Preparation and Typing
Alameda County Office of Education
Research and Development Unit
Lena Rogers

INTRODUCTION

WHAT IS THE COURSE OF STUDY?

The *Course of Study* is a resource document that is designed to be used in program planning at the school district level. It gives an overview of the goals and objectives for 19 curriculum areas from kindergarten through twelfth grade. Four of these areas are described both separately and as they are infused into the other areas. The *Course of Study* also presents an overview of commonalities among the goals of the 19 curriculum areas. These commonalities or goal clusters can be used to define overarching goals and to coordinate program planning among different curriculum areas.

The *Course of Study* is neither a framework nor a curriculum guide. Frameworks generally contain a comprehensive description of an individual curriculum area. Curriculum guides usually contain a detailed description of the scope and sequence of learning in a subject area and often include suggestions for appropriate teaching strategies.

WHAT IS THE CONTENT OF THE COURSE OF STUDY?

The content of the *Course of Study* has been developed to provide program planners with two types of information. Each curriculum area is defined in terms of goals and objectives and other descriptive material. Additionally, the goals for all the curriculum areas have been sorted into goal clusters to highlight the commonalities among the areas.

The principal sources for the content were the California State Frameworks and the Education Code, supplemented by resource and instructional guides and specialized publications. In cases where new frameworks are being prepared but have not yet been officially adopted, the content reflects the views of people working on the new frameworks and related task forces, as well as teachers and curriculum specialists who are leaders in their fields. Generally, the goals statements in the *Course of Study* use the same wording or reflect the concepts of goal statements in the frameworks.

CURRICULUM AREAS

The [illegible] in all the curriculum areas has been organized according to a uni[illegible] The major body of information about each curriculum area is fou[illegible]tements of goals and objectives. Other types of descriptive material hav[illegible]en included to supplement and clarify the goals and objectives. Each curriculum area includes the following sections:

- The **Point of View** at the beginning of each curriculum section is a statement about the major characteristics of the area. It is intended to give the reader background information for understanding the directions for student development that are indicated in the goals and objectives.
- **Vignettes** at each of four levels of development describe learning activities that are based on one of the goals for the area. The vignettes have been included to help the reader translate the goals into teaching-learning experiences. The vignette levels correspond approximately to grade levels in the following order:

Vignette Levels	1	2	3	4
Grade Levels	K-3	4-6	7-9	10-12

- **Goals, Objectives, and Samples of Learner Behaviors** are the road signs within each curriculum area that point to the direction in which the student should be traveling. The goals are general statements about the major desired outcomes for students. The objectives are more specific statements about the skills, knowledge, and understandings that students are expected to develop within each of the goal areas. Samples of learner behaviors follow each objective. These samples clarify the objectives by describing student behaviors at four levels of development which correspond to the levels used for the vignettes.
- **Professional Associations and Their Publications,** which are of interest to kindergarten through twelfth grade teachers, are listed at the end of almost every section. Some curriculum areas, such as career education, are not represented by any professional associations.

GOAL CLUSTERS

The goals for all the curriculum areas have been sorted into nine clusters or categories. The purpose of this analysis is to highlight the commonalities among curriculum areas and to illustrate how various subject matter areas of the program contribute to the development of common learnings. The nine goal clusters are:

- Career Knowledge, Attitudes, and Skills
- Communication Skills
- Cultural Understandings, Skills, and Values
- Daily Living Skills
- Personal Values, Responsibilities, and Ethics
- Problem-Solving and Thinking Skills
- Self-Understanding and Self-Concept
- Social Values, Responsibilities, and Skills
- Understanding Natural and Social Environments

The nine goal clusters might be thought of as overarching goals of the total curriculum with various subject matter areas contributing to different aspects of students' growth and development. For example, one goal cluster is Problem-Solving and Thinking Skills. Goals or objectives in seven areas of the curriculum pertain specifically to problem-solving and thinking skills:

Career Education (Goal 3.0) To weigh significant factors in career-related decisions including personal interests, aptitudes, and abilities, and the implications of the decision alternatives for life roles as citizen, user of leisure, and family member

Drama/Theatre (Goal 5.0) To develop skills for solving problems in both real and imagined situations using critical, evaluative, and creative methods of drama/theatre techniques

English Language Arts (Goal 6.0) To use reading as a means of learning

Industrial Arts (Goal 1.0) To develop basic educational skills of communication, computation, and decision making necessary in solving problems of an industrial nature

Mathematics (Goal 2.0) To use logical thinking strategies in selecting and applying appropriate mathematical concepts, operations, and models for the analysis and solution of problems

Science (Objective 1.5) To weigh alternative scientific, economic, psychological, and social factors when considering possible resolutions to problems

Social Sciences (Objective 2.2) To develop and use valuing skills that are useful in the processes of recognizing and clarifying problems as well as managing and resolving them

Another example of an overarching goal cluster is Communication Skills. Goals in six curricular areas focus on communication skills:

- Bilingual-Bicultural Education
- Business Education
- Drama/Theatre
- English Language Arts
- Foreign Language
- Science

Figure 1 displays the relationships between each of the nine goal clusters and each of the 19 curriculum areas. Program planning groups should note that this analysis is based only on the materials available in this document. The analysis is not meant to be definitive, but rather a point of departure. As with all content in the *Course of Study*, the chart has been developed to point out a direction in which program planning teams and teaching staffs can extend their thinking. Obviously, many of the curriculum areas could include goal clusters where they are not represented in this chart.

GOAL CLUSTERS / CURRICULUM AREAS	ART	BILINGUAL-BICULTURAL	BUSINESS	CAREER	CONSUMER	DRAMA/THEATRE	ENGLISH LANGUAGE ARTS	ENVIRONMENTAL	FOREIGN LANGUAGE	HEALTH	HOME ECONOMICS	INDUSTRIAL ARTS	MATHEMATICS	MULTICULTURAL	MUSIC	PHYSICAL EDUCATION	SCIENCE*	SOCIAL SCIENCES*	TRAFFIC SAFETY
Career Knowledge, Attitudes, and Skills			1.0 3.0 4.0 5.0	4.0 5.0	2.0						8.0	2.0 3.0					1.11 4.5	3.4 2.6	
Communication Skills	1.0	1.0 2.0 4.0	2.0			4.0	3.0 4.0 5.0 7.0 8.0 9.0		1.0								1.6 3.5 3.6 3.7		
Cultural Understandings, Skills, and Values	2.0	3.0				3.0 6.0 7.0			2.0 3.0				6.0	2.0 3.0	1.0 4.0		1.10 4.6	3.2 3.3 3.5	
Daily Living Skills			6.0		3.0 6.0					1.0 2.0 3.0	3.0 4.0 5.0 6.0		1.0			3.0 5.0			2.0
Personal Values, Responsibilities, and Skills					1.0		2.0	4.0			7.0						3.2 4.8	4.1	1.0
Problem-Solving and Thinking Skills				3.0		5.0	6.0					1.0	2.0 3.0 4.0 5.0				1.1 1.5 1.8 1.9 2.0 3.1 3.3 3.4 3.8	1.3 1.4 2.1 2.2 2.3 2.4 5.1 5.4	
Self-Understanding and Self-Concept	3.0					1.0	1.0				1.0		7.0	1.0	2.0	1.0 2.0		2.5 4.2	
Social Values, Responsibilities, and Skills	4.0		7.0	1.0 2.0		2.0		5.0			2.0			4.0 5.0		4.0	1.4 1.7	4.3 4.4 4.5 5.2 5.3	
Understanding Natural and Social Environments					4.0 5.0 7.0 8.0			1.0 2.0 3.0				4.0 5.0					1.2 1.3 4.1 4.2 4.3 4.4 4.7	1.1 1.2 3.1 3.6	

FIGURE 1
RELATIONSHIP OF GOAL CLUSTERS TO CURRICULUM AREAS

*Certain goals in science and social sciences are broad in definition and include objectives which can be sorted into several different categories. In these cases, the objectives were used in the sorting process.

WHAT ARE THE INFUSED AREAS?

The concepts and processes of career, consumer, environmental, and multicultural education are intended to be infused throughout the entire curriculum. In order to make this infusion process clear, each of the four areas is presented in two different ways: (1) as individual sections in the same format used for other subject matter areas, and (2) through the inclusion of appropriate goals, objectives, and learner behaviors within the other curriculum areas. This infused material is noted in the margins wherever it appears.

In some cases these four areas can be infused into the other areas through the regular subject matter content. For example, science already has a career education objective. Home economics, industrial arts, and physical education have major components which focus on career awareness and training. Social sciences programs emphasize multicultural themes throughout. Environmental issues are part of programs in science, social sciences, mathematics, traffic safety, and others. Consumer education is represented by objectives in science, business education, and other areas in which students study about life-style choices and consumer action or develop understanding of the social/economic structures of our society.

Where the usual subject matter did not explicitly reflect one or more of the infused areas, additional goals or objectives were added as appropriate. They are meant to be illustrative; the curriculum planner might add many more.

INFUSED AREAS / CURRICULUM AREAS	ART	BILINGUAL-BICULTURAL	BUSINESS	CAREER	CONSUMER	DRAMA/THEATRE	ENGLISH LANGUAGE ARTS	ENVIRONMENTAL	FOREIGN LANGUAGE	HEALTH	HOME ECONOMICS	INDUSTRIAL ARTS	MATHEMATICS	MULTICULTURAL	MUSIC	PHYSICAL EDUCATION	SCIENCE	SOCIAL SCIENCES	TRAFFIC SAFETY
Career					2.0			4.2		1.9 2.9 3.9	8.0	2.1 3.0	7.5			1.5 2.5 3.5 4.4 5.4	1.11 4.5	2.6	2.7
Consumer			6.0 7.0					3.3		1.7 2.7 3.7	5.0	4.1	7.4						2.4
Environmental	4.4		4.5		7.0	7.4	1.3 2.3 9.9			1.10 2.10 3.10	4.1 7.4	4.2	3.5	2.3	4.4	5.5	1.2 1.3 4.1 4.2 4.3 4.4	5.4	2.1 2.2 2.3
Multicultural	2.0	3.0				6.0	9.4	3.0	2.0 3.0	1.4	2.6		6.0		1.4 4.1 4.2 4.3		1.10 4.6	1.4 3.0	

FIGURE 2
LOCATION OF GOALS AND OBJECTIVES FOR INFUSED AREAS WITHIN OTHER CURRICULUM AREAS

THE ROLE OF THE COURSE OF STUDY IN CURRICULUM DEVELOPMENT

Curriculum development might be thought of as comprising three stages:

- Selecting and analyzing content
- Organizing content
- Selecting instructional strategies

Most of this *Course of Study* is concerned only with selection of content. The goal clusters and vignettes provide some directions and illustrations for organizing content, and the vignettes also suggest instructional strategies in a limited way.

By focusing on the selection of content and providing a document where the major content of all curricular areas can be summarized and their relationships noted, this *Course of Study*, it is hoped, will provide a sound basis for ongoing curriculum development, planning, and implementation.

HOW WAS THE COURSE OF STUDY DEVELOPED?

The *Course of Study* is a cooperative project sponsored by the boards of education of 55 counties in California. The project is under the general direction of the California State Steering Committee for Curriculum and Instruction and is administered through the Alameda County Office of Education.

The first edition of a cooperatively developed *Course of Study* based on goals drawn from subject matter frameworks (rather than on concepts from textbooks, as had been done for many years previously) was published in 1974 after a statewide survey of educators at county and district levels had established the general content and organization. A second edition was published in 1976 and a supplement highlighting the commonalities among the various curriculum areas was published in 1978. Both of these editions covered content for kindergarten through eighth grade.

This is the first edition in which there is a uniform format for all curriculum areas. It is also the first edition to extend from kindergarten through the twelfth grade.

Policy and decision making on substantive points were under the direction of a seven-member editorial board. Four members of this board were on the State Steering Committee for Curriculum and Instruction. The remaining members represented potential user groups. The project manager and editor worked closely with this group in periodic meetings and through other channels.

All content was originally drafted by contributors with special knowledge of their curriculum areas. They were selected by the editorial board, which also set the specifications for format; and they represented all geographical areas in the state, as well as different educational settings and types of positions. The project manager and editor worked with all contributors over a six-month period, which included a one-week intensive writing session for the whole group as well as many individual conferences.

Drafts of each curriculum area were sent for review to approximately 800 persons throughout the state. Each reviewer considered one curriculum area. The reviewers represented such potential user groups as classroom teachers, administrators, coordinators, college instructors, and representatives of professional organizations. The returns for each of the curriculum areas ranged from 19 to 50 percent, with a mean of 32 percent. The information from the reviews was a major source of input for the rewriting and editing of each section.

At the suggestion of the editorial board, Helen Wallace, a member of the board, worked with the editor to sort the goals in order to identify commonalities among the areas. The resulting nine goal clusters derived from this process were reviewed by the editorial board.

COURSE OF STUDY 1979-1981

CURRICULUM AREAS

Art Education	1
Bilingual-Bicultural Education	6
Business Education	11
Career Education	20
Consumer Education	25
Drama/Theatre	33
English Language Arts	41
Environmental Education	52
Foreign Language	60
Health Education	65
Home Economics	74
Industrial Arts	82
Mathematics	88
Multicultural Education	97
Music Education	102
Physical Education	109
Science Education	116
Social Sciences	125
Traffic Safety Education	135

ART EDUCATION

POINT OF VIEW

Art education deals with the cultivation of students' emotional, subjective, and intuitive responses to visual aesthetic forms as well as the development of an intellectual and rational understanding of art.

Art education's major value is providing that which is unique to art: developing abilities to comprehend, plan, produce, and evaluate visual aesthetic forms. The knowledge and skills which are needed to create and appreciate art forms are complex and require development through a sequentially ordered program.

Art activities allow for the expression of ideas through visual forms in many other areas of the curriculum. These activities provide an opportunity for students to develop knowledge through a medium that can be both complementary and stimulating to knowledge that is gained through other mediums such as reading, writing, and speaking.

Evaluation of learning in art focuses on individual growth in creative expression and in the quality of responses to aesthetic form.

VIGNETTES

GOAL 1: To develop skills for visual/tactile perception which increase sensitivity to the visual world

LEVEL 1

The teacher in a second grade class has been developing an art program. She has planned for specific times when students have experiences with visual arts through activities such as painting, drawing, looking at slides, observing the environment, and discussing impressions.

Today the group went on a walk around the neighborhood of the school. The students were told to look for shapes in anything they saw. One girl immediately pointed out the shapes of the sidewalk sections. A boy noticed the shapes of the windows in the buildings. The class identified squares, rectangles, and one oval-shaped window. Another student remarked that the front of a building is a larger shape. That led to a discussion of the many shapes within the outer shapes of buildings. One group counted five levels of shapes within shapes.

The group stopped in front of a garden and began to talk about what they saw there. The teacher suggested they look for shapes within shapes as they had done earlier. One student had already remarked on the similarity in the shapes of leaves on a tree. Another had noticed the similarity among flowers of the same species. Now students began comparing the patterns on the leaves. They began to notice how the same pattern was repeated on each leaf of a plant.

The teacher suggested they look for repetition in patterns. She noticed that they had talked about patterns in buildings. Sometimes the same pattern of windows was repeated on each level of a building. One student noticed the repetitive pattern on the columns in front of the building. Another noticed the same repetition in the fence around the garden. Several students identified patterns of color in the way buildings were decorated.

After the walk the group continued to talk about the shapes and patterns which they saw in school. The teacher showed the class prints and slides of paintings which she selected for identifying shapes and patterns. They also talked about patterns in their clothing.

LEVEL 2

The students in a fifth grade class were experimenting with the use of different colors both in the forms they were creating and in what they saw in the environment. They were developing understanding about combinations of colors—which colors seemed to be complementary and aesthetically pleasing. The teacher had planned several activities in which the students would have experiences with the hue, value, and intensity of different colors. They had already developed a practical understanding of these concepts through mixing colors and discussing colors they saw in their clothing and in objects around the environment. Different groups of students were developing scrapbooks of different colors, and writing comments about each color sample. Following is one activity the teacher planned for the program.

At the same time, on a number of days, the teacher and students went outside the school building and observed the sky. They divided the sky into sections; near the horizon, around the sun, above their heads, and farthest away from the sun. They described the colors they saw in terms of hue, value, and intensity. Some students took paints outside with them and attempted to recreate the colors as they observed them. Other students made notes on a chart and compared observations on different days. Later, the samples of colors made by the students were attached to the charts. All of the students attempted to find examples of the colors in swatches of cloth or pieces of paper.

LEVEL 3

The teacher in a seventh grade class had planned a number of activities in which the students would explore the use of positive and negative (empty) space in visual art forms. In one activity, students used paper to cut out forms. Afterwards, they used the cutout portion to create designs. On a walk through the neighborhood, the teacher told students to find forms or shapes that are created in the space between objects such as trees and buildings. The entryway to buildings was one of the forms which was identified. Afterwards, students began discussing the shapes of hallways and other rooms in buildings as negative spaces. Various students found photographs and illustrations of buildings in different parts of the world. These were stimulating for discussions about the use of positive and negative spaces in architecture. In speculating about the reasoning underlying different architectural designs, the students began associating concepts they had learned in other curriculum areas such as science, industrial arts, and social science with the development of aesthetic preferences in building designs.

The teacher displayed photographs and slides of sculpture and the group discussed the use of positive and negative space in these forms. Following this, the group made a field trip to observe several pieces of sculpture in the community. Fortunately, several students were involved in a study of ancient Greek and Egyptian civilizations in a social science class. They made a

report to the rest of the group about the use of positive and negative space in the art and architecture of these periods.

LEVEL 4

Students in a twelfth grade class were developing personal styles for expression through visual forms. The students and the teacher had collected a variety of materials which included bricks, pieces of metal, wood, and glass, as well as a variety of fabrics such as burlap and velvet with which the students were experimenting. Students exhibited their work at different stages of development and explained the ideas, feelings, and more vague notions which were guiding them in the creation of the visual forms. Other members of the group commented on their impressions of the works. In these discussions, the teacher often asked questions to prompt students to use the background which they had developed over several years in the school art program.

Incidentally, in at least two staff meetings during the year, staff members explained the art program in their classes. The district art consultant was always present at these meetings and used the common information about art programs as the basis for helping staff develop a coherent art program which was infused in a variety of curriculum areas. Gradually, over a period of time, the staff had developed a program that was complementary to the formal art program.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To develop skills for visual/tactile perception which increase sensitivity to the visual world**

	SAMPLES OF LEARNER BEHAVIORS			
OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To develop awareness of color, shapes, and textures in man-made and natural environments	Observes and discusses uses of natural and man-made objects to create visual forms in the community.	Creates visual forms which reflect natural and man-made forms in the environment.	Analyzes strengths and weaknesses in the quality of the visual environment.	Analyzes needs for aesthetic improvements in the community such as refurbishing public property, and developing public awareness of the needs.
1.2 To develop skills in the use of color, value, texture, and size	Demonstrates combinations of colors, shapes, and textures in both two and three dimensions.	Creates simple visual forms using various textures and colors.	Demonstrates ability to organize and compose a variety of complex visual forms using different textures and colors.	Increases skills for visual recall, including discrimination in the perception and use of colors, values, textures, and sizes.

MULTICULTURAL

GOAL 2.0: **To develop knowledge and appreciation of the nature of the visual arts in various cultures, both past and contemporary**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To develop an awareness of major artistic movements, past and present	Discusses personal reactions to a variety of visual art forms.	Discusses similarities and differences in the work of two artists from the same historical period.	Visits art collections in museums, studios, and galleries, and describes similarities and differences in art produced in various times and places.	Discusses the influence of society on art and of art on society.
2.2 To develop the ability to use awareness of the history of art in visual expression	Recreates specific examples of artwork that have been used in celebrations in various cultures such as masks, statues, and costumes.	Demonstrates use of mood and feeling that reflects art forms past and present in own artwork.	Verbally or visually describes contributions of various ethnic groups to American art.	Uses artwork of different cultures and times as source of inspiration in the creation of visual forms.

GOAL 3.0: **To cultivate respect for originality in visual expression**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To develop a personal style for visual expression	Uses a variety of subjects as a basis for individual work.	Translates moods and feelings into visual form.	Uses major artistic styles from specific periods and cultures in creating visual forms.	Explores one medium (e.g., painting, printmaking) in depth to develop personal style.
3.2 To develop skills for differentiating and analyzing forms of creative expression	Discusses differences and similarities in work by self and peers.	Uses various forms of creative expression such as music and poetry as a source of inspiration for creating visual forms.	Demonstrates skills in constructive criticism of the structure of visual forms.	Discusses the similarities and differences among the various arts (e.g., music, poetry, drama).

GOAL 4.0: To make aesthetic judgments in the visual arts

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To examine works of art with respect to aesthetic meanings, sensory qualities, styles, materials, and the processes used to create them.	Describes visual qualities in natural and man-made forms and in works of art.	Interprets expressive qualities such as action, anger, and happiness in visual forms.	Uses resource materials such as books, prints, periodicals, films, and slides as a basis for aesthetic judgments.	Uses a rational argument to explain judgments of aesthetic quality.
4.2 To continually expand the range of vocabulary used in relation to visual art forms	Uses appropriate new terms in discussing visual art forms.	Demonstrates increasing ability to describe works of art in discussions with peers.	Writes about works of art, both contemporary and historical.	Demonstrates adequate command of terminology to discuss and write about artworks.
4.3 To develop awareness of the historical development of visual art forms in relation to social, political, and commercial purposes	Discusses the use of art and artists in the local community.	Describes uses of the visual arts in popular media such as advertising art, television, and film.	Visits collections of original works of art and discusses specific works in historical context.	Discusses art movements from specific periods (e.g., impressionists).
4.4 To demonstrate skill in using creative expression as a means of bringing about constructive action to solve social and environmental problems	Learns songs, reads stories, views plays, and studies pictures on environmental subjects. Identifies and expresses positive and negative feelings generated by each example.	Writes simple stories and poems, writes or participates in plays, performs music, and creates art forms to express personal feelings about the environment and its resources.	Studies historical examples of how artistic expression influenced various social events (e.g., *Uncle Tom's Cabin*, slavery; "We Shall Overcome," civil rights; *Grapes of Wrath*, 1930's social conditions).	Identifies specific environmental problems in the community, state, nation, or world, and develops one or more forms of artistic expression to apply to specific environmental problems.

ENVIRONMENTAL

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

California Art Education Association
W. Dwayne Greer
4665 Lampson Ave.
Los Alamitos, CA 90720

Publication: **The Painted Monkey**
Barbara Herberholz, Editor
5730 Classic Pl.
Carmichael, CA 95608

National Art Education
Eliott Eisner, President
1916 Association Dr.
Reston, VA 22091

Publications: **Art Education**
Art Teacher

BILINGUAL-BICULTURAL EDUCATION

POINT OF VIEW

The major purpose of bilingual-bicultural education is to provide students whose primary language is other than English with equitable access to the knowledge and skills which will enable them to participate actively and effectively in all aspects of society. It also affords the opportunity for other students to learn more than one language, and to relate to the peoples of other cultures.

Students' primary language and culture is maintained, further developed, and utilized as a means of instruction in the content areas. At the same time, students' capabilities to use English in the instructional process are developed in a systematic and sequential manner. As students acquire skills in their own language and in English, they will be able to participate in the educational program in both languages.

Within this framework the importance to the individual of maintaining ties with home and community is emphasized. Students are able to develop further awareness of and respect for the language and culture of their backgrounds. Additionally, unfamiliarity with the language of instruction is not a barrier to learning, and students are motivated to remain in school and pursue a post-secondary education.

Another purpose of bilingual-bicultural education is to develop students' awareness, understanding, and respect for members of other language, ethnic, and cultural groups. As all participating students develop the facility to communicate in more than one language and within the context of diverse cultures, they develop an understanding of the contributions which linguistic and cultural pluralism can make to the development of responsible citizens.

Bilingual-bicultural education offers the unique opportunity for students to experience a linguistically and culturally pluralistic society within a particular school setting.

VIGNETTES

GOAL 2: **ENGLISH AS A SECOND LANGUAGE — To develop the ability to communicate in English by students whose primary language is other than English**

LEVEL 1

Aural Comprehension of Prepositions

The students are given four items (e.g., chalk, pencil, crayon, eraser) and an empty box. The teacher then gives a series of commands to which the students respond with action.

"Put the chalk in the box."

"Put the pencil beside the box."

"Put the eraser behind the box."

Next, two sets of objects and two empty boxes are placed across the room from two students. The teacher gives a series of commands. The students complete the tasks and return to their starting positions. The first one finished is the winner. Repeat with other students.

LEVEL 2

Sound Discrimination

This is a short listening activity used for practice in sound discrimination. The sound difference should be difficult for the speakers. For example, dominant Spanish speakers commonly have difficulty distinguishing the ĭ sound as in ship and the ē sound as in sheep. Presenting these sounds in pairs helps the students distinguish the difference. Use several pairs of pictures for each word.

Example:	ship	-	sheep	mitt	-	meat
	bit	-	beet	dip	-	deep

The teacher shows one picture of the pair and repeats the name of the object (e.g., ship). Repeat with the second picture (e.g., sheep). As the teacher alternates the words, students identify the picture of the object.

LEVEL 3

Patterns of Stress as Used in the English Language

The teacher reads a list of words and the students underline the part of the word with the loudest stress.

mother	father	visited
paper	baseball	piano

Next, the teacher reads sentences and the student underlines the word in the sentence which receives the most stress. Repeat stressing different words to imply different meanings.

He's eating his dinner.

I'm studying English.

Let's have lunch.

LEVEL 4

Listening and Making Inferences

The teacher reads sentences which relate one side of a telephone conversation. The students fill in conversation from the other end of the line.

Teacher	Students
John isn't home now.	— May I speak to John?
may I take a message?	— Is John home?
	— Let me speak to John.

DEFINITIONS

Bilingual-Bicultural Education

A program which uses two languages for instruction, one of which is English. The goal is to enable students to achieve competency in both languages. The program includes:

- Daily instruction in English language arts
- Development of language arts skills in the pupil's primary language
- Selected subjects taught in the pupil's primary language
- Experiences with the cultures associated with the languages.

Full Bilingual Instruction

A program in which basic skills are developed in both languages. Instruction is provided in both languages in required content areas.

Partial Bilingual Instruction

A program in which language arts skills are developed in both languages, but the language in which the student functions best is used for instruction.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: LANGUAGE MAINTENANCE — To maintain and develop the primary language skills of students whose primary language is other than English

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To demonstrate competence in communicating through the use of description, dialog, explanation, and appropriate form	Responds to verbal directions.	Distinguishes between accurate and inaccurate statements.	Uses verbal information to relate an event.	Listens to and analyzes a formal speech.
1.2 To speak the language comprehensively	Describes the physical attributes and functions of objects.	Explains and demonstrates how products are made.	Describes a series of events that may have led up to a circumstance.	Discusses problems and solutions.
1.3 To comprehend the written language	Recalls the main idea of a story.	Selects the topic sentence of a paragraph.	Infers the cause of an event in a story.	Comprehends dialectal varieties used by characters in a reading selection.
1.4 To write the language comprehensively	Describes a personal feeling.	Describes similar events in different cultural settings.	Expresses one idea, using different writing styles.	Writes informal dialog for a skit.
1.5 To recognize and use modes of nonverbal communication	Demonstrates gestures used in different cultures.	Uses gestures in place of verbal expression.	Uses appropriate non-verbal communication.	Explains differences and similarities in the use of nonverbal communication in different cultures.

GOAL 2.0: ENGLISH AS A SECOND LANGUAGE — To develop the ability to communicate in English by students whose primary language is other than English

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To comprehend the spoken language	Aurally discriminates new sounds.	Discriminates pitch in statements that express commands, surprise, questions, etc.	Uses affixes and verb tenses correctly.	Explains meaning implied by intonation.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.2 To speak the language comprehensively	Uses greetings appropriate to particular situations.	Uses correct pronunciation.	Demonstrates the use of pitch to signal simple statements that express commands, questions, surprise, etc.	Uses intonational patterns appropriately.
2.3 To comprehend the written language	Comprehends the sound-symbol relationship of the new language.	Understands grammatical symbols used in English.	Demonstrates how the meaning of a word can change in different contexts.	Explains dialectal differences in reading selections.
2.4 To write the language comprehensively	Demonstrates the ability to use English sound-symbol relationships in writing from dictation.	Writes brief stories describing events (e.g., holidays) in the culture of the language being studied.	Uses common idioms in writing.	Uses technical vocabulary related to a content area.
2.5 To recognize and use modes of nonverbal communication	Demonstrates gestures used in different cultures.	Uses gestures in place of verbal expression.	Uses appropriate nonverbal communication.	Explains differences and similarities in the use of nonverbal communication in different cultures.

GOAL 3.0: **MULTICULTURAL EVALUATION — To preserve and strengthen understanding and respect for one's own language and culture and to develop an appreciation of the language and culture of others**

MULTICULTURAL

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To develop an awareness and appreciation of cultural pluralism in this society	Compiles a list of words used in English which are borrowed from other languages.	Lists expressions which are commonly used in two languages.	Describes a similar event as it is celebrated in two cultures.	Creates a skit which contrasts behavior patterns in two cultures.
3.2 To demonstrate respect for and acceptance of the heritage of self and others	Describes characteristics of own heritage and of others.	Analyzes the diverse ways, manners, customs, and life-styles of people from different cultural groups in the United States.	Analyzes the contribution that own cultural group has made to the broader culture in the United States.	Analyzes the factors that cause own and other cultural groups to remain distinct in the United States and the factors that cause cultural groups to be absorbed in the broader culture.

GOAL 4.0: SECOND LANGUAGE LEARNING — To develop the ability of English-speaking students to use more than one language in a bilingual-bicultural setting

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS			
	Level 1	Level 2	Level 3	Level 4
4.1 To comprehend the spoken language	Responds to verbal instructions.	Aurally discriminates new sounds.	Explains differences in the use of pitch between languages.	Explains differences in the use of intonation between languages.
4.2 To speak the language comprehensively	Translates greetings used in both languages into the other language.	Uses correct pronunciation in both languages.	Demonstrates the ability to use pitch appropriately in both languages.	Interprets material heard in one language into the other language.
4.3 To comprehend the written language	Reads in the visual direction of the language being learned (right-left, up-down).	Compares syntactical structures used in both languages.	Demonstrates how the meaning of a word can change in different contexts in both languages.	Translates reading from one language to the other.
4.4 To write the language comprehensively	Uses sound-symbol relationships correctly in writing from dictation.	Uses different writing styles to express an idea.	Writes a brief composition.	Translates technical terms in the content areas from one language to the other language.
4.5 To recognize and use modes of nonverbal communication	Demonstrates gestures used in different cultures.	Uses gestures in place of verbal expression.	Uses appropriate nonverbal communication.	Explains differences and similarities in the use of nonverbal communication in different cultures.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

Modern Language Association (MLA)
62 West Fifth Ave.
New York, N.Y. 10011

Publication: **Modern Language Journal**

Teachers of English to Speakers of Other Languages (TESOL)
School of Languages and Linguistics
415 Nevils Building
Georgetown University
Washington, D.C. 20007

Publication: **TESOL Journal**

BUSINESS EDUCATION

POINT OF VIEW

The business education program has two components: office education and distributive education. Office education prepares students for employment or advancement in occupations related to the facilitating function of an office. Specific office education programs include, but are not limited to, the following:

- Accounting and computing
- Business data processing systems
- Filing, office machines, and general office clerical functions
- Materials support
- Personnel and training
- Supervisory and administrative management
- Stenographic, secretarial, and related functions
- Typing
- Information communications

Distributive education includes study and activities related to the flow of goods and services from the producer to the consumer. Specific distributive education programs include, but are not limited to, the following:

- Advertising services
- Apparel and accessories
- Financial credit
- Food services and distribution
- Insurance
- Marketing and merchandising
- Real estate
- Recreation and tourism
- Transportation
- Hotel and lodging

A business education program at the high school level is designed to prepare students with the skills, attitudes, and understandings that are necessary to perform in entry-level positions. The program can be organized around the competencies required for a cluster of distributive and office occupations or around traditional courses.

Student performance in either program design should be assessed in terms of minimal industrial requirements for entry-level positions. An evaluation design also should include a review and assessment of program content in terms of current business practices. New techniques and equipment in the business community sometimes create a need for changes in the business education curriculum.

The business education curriculum has a general education component that is interwoven through many business subjects. This component focuses on the development of personal business skills for the management of personal affairs and the selection of goods and services that are available from business, industry, and government. Through this component students also develop a general understanding of business in relation to the economic system of this country. Additional emphasis is placed on developing students' awareness of the world of work and knowledge about career opportunities and the preparation necessary for specific careers in business.

Business education programs operate at the grade levels which correspond to Levels 3 and 4 in this Course of Study. Vignettes and goal statements for Levels 1 and 2 have not been included.

VIGNETTES

GOAL 2: **To understand and use appropriate forms, styles, and procedures in oral and written business communication**

LEVEL 3

The instructor prepares students to type a simple manuscript by explaining, demonstrating, and furnishing examples of the use of formats, superior numbers, single space quoted materials, and the use and preparation of backing sheets. Transparencies and overlays are used to illustrate the sequential steps in instruction.

Students learn about format and placement through drill on setting up and typing the separate parts of a manuscript such as the title and first paragraph on the first page, quoted material, footnotes, and the heading and first paragraph on subsequent pages.

LEVEL 4

Students learn how to estimate letter length, and lengthen or shorten the appearance of a letter to achieve a balanced look on the page. The instructor assigns tasks that give students opportunities to make decisions in using these skills.

Practice materials are helpful in providing a wide range of experiences with letter forms. Students progress individually. Instructors give timings to the entire group on letters and letter parts at appropriate intervals. Students can use the results to assess the gains they have made in skill development.

Students can use a teacher's key for feedback about their placement decisions. Because a format is a visual display and should be treated as a totality, students should use the key after typing the letter when the format is completed.

At the beginning instructions are detailed and teachers work with individuals, explaining and demonstrating on a one-to-one basis. As students develop their skills, they work more independently. Eventually, students have the same responsibilities for their work in the classroom as they would have in a business situation.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To develop knowledge and skills necessary for entry-level employment or admission to advanced training in one or more of the following occupational areas: general clerical, marketing and distribution, secretarial, accounting, and management**

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS	
	Level 3	Level 4
1.1 To demonstrate competency for any business occupation with skills in the use of the adding machine; basic data processing concepts; making change; basic math computations; using references, manuals, directories, and catalogs; and sorting, checking, and verifying data	Uses the National Zip Code Directory to obtain the zip code for business addresses in various cities.	Accurately answers requests for information using an almanac.

OBJECTIVES	Level 3	Level 4
1.2 To demonstrate competency for an entry-level general clerical position with skills in duplicating materials, filing and retrieving documents, handling incoming and outgoing mail, managing petty cash, and typing rapidly and accurately	Types for five minutes on material of average difficulty at a rate of 25 words per minute with no more than one error per minute.	Types a transmittable copy and carbon copies, if indicated, of a hand-written draft with no errors
1.3 To demonstrate competency for an entry-level position in marketing and distribution with skills in basic sales techniques, cashiering, customer services, sales promotion, stock keeping and inventory control, and knowledge of the basic principles of advertising, creative selling, and display		Lists possible ways of reducing losses resulting from inventory shortages in stores.
1.4 To demonstrate competency for an entry-level secretarial position with skills in transcribing dictation taken from a machine or another person, typing rapidly and accurately, duplicating materials, filing and retrieving documents, handling incoming and outgoing mail, and managing petty cash		Takes dictation at 90 words per minute and types a transmittable letter from notes, making the appropriate number of copies and typing a corresponding envelope.
1.5 To demonstrate competency for a position in accounting with skills in maintaining and interpreting financial reports, using appropriate accounting procedures and classifications for various forms of business ownership, and interpreting certificates of incorporation		Compiles a profit and loss statement for a business.
1.6 To demonstrate competency for a position in management with knowledge of the general functions of management, elements of business organizations, classification of management personnel, ways in which businesses establish policies, and ways in which management decisions are influenced by various formal reports		Writes memo identifying reasons for price differences in the nationally advertised brands, store brands, and off-brands of the same product.

GOAL 2.0: To understand and use appropriate forms, styles, and procedures in oral and written business communication

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 3	Level 4
2.1 To demonstrate knowledge of technical skills which aid effective writing (e.g., ability to write legibly; organize materials and ideas; spelling, punctuation, and grammar skills; and proofreading, editing, and evaluation skills)	Writes a simple message in legible handwriting that is properly punctuated and contains no misspelled words.	Composes and types a routine letter to a customer, answering a request for information.

OBJECTIVES	Level 3	Level 4
2.2 To demonstrate the ability to evaluate choice of language in written work (e.g., economy of expression, avoidance of irrelevancies, clarity of meaning, and a style that is appropriate to the purpose)	Uses dictated notes to compose simple memos that present content in a clear and efficient manner.	Rewrites and types an unedited business letter so that the corrected letter is clear, concise, and courteous.
2.3 To demonstrate the ability to apply techniques of letter writing to business and personal use letters	Writes a brief statement about a job-related situation that conveys the essence of the message and contains no serious errors in word usage or punctuation.	Composes and types a response to an incoming piece of correspondence that conveys the message in accepted style and format with no errors in punctuation, grammar, spelling, or word usage.
2.4 To demonstrate knowledge of the accepted formats, elements, and placement of elements of business letters, manuscripts, and reports	Types a simple manuscript using proper format and footnote placement.	Types a two-page letter with no discernible corrections, using accepted style and including all necessary letter parts.
2.5 To demonstrate knowledge of factors affecting the clarity and accuracy of interpersonal communications (e.g., articulation of words, choice of language, gestures, and intentions and expectations of speaker and listener)	Converses spontaneously with another student using standard pronunciation, diction, vocabulary, and grammar.	Prepares and presents an oral report based on articles in trade journals or business publications, and demonstrates the ability to speak clearly and in a businesslike manner.
2.6 To demonstrate knowledge of the purposes for listening in a variety of situations (e.g., to receive information or instructions)	Given a set of oral instructions requiring the completion of an activity or action, completes the activity or action satisfactorily.	Given role playing situations involving customer complaints, listens and handles the complaint courteously and to the customer's satisfaction.
2.7 To use appropriate strategies to clarify the meaning of what is heard (e.g., asking questions for specific information, locating, and using supplementary information)	Asks the speaker to repeat the instructions when not sure how to proceed.	Restates the instructions given and asks the speaker to verify that restatement is correct.

OBJECTIVES	Level 3	Level 4
2.8 To use appropriate business telephone techniques for placing calls and conducting conversations	Uses appropriate language and responds courteously and spontaneously with a pleasant voice in typical business telephone conversations.	Operates a switchboard in typical situations to complete incoming-to-extension calls, extension-to-outside calls, extension-to-extension calls, switchboard-to-outside calls, calls to hold, and multiple calls.

GOAL 3.0: To develop work habits and values that contribute to successful performance in a business environment

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 3	Level 4
3.1 To demonstrate effective work habits of punctuality, good attendance, completing assigned tasks on time, staying with a task until it is completed, and willingness to do assigned tasks	Works courteously with co-workers, and treats teachers and classmates with respect.	Offers to help co-workers when completing assigned tasks.
3.2 To demonstrate employable traits of honesty, integrity, loyalty, and sincerity	Cites examples of loyal behavior toward friends and co-workers.	Cites examples of loyal behavior toward employer in given situations.
3.3 To work cooperatively with others, and maintain a pleasant and helpful attitude, respecting differences in the cultural background and personal characteristics of co-workers	Maintains a friendly, pleasant attitude with fellow classmates.	Maintains a friendly, pleasant attitude while dealing with an irate customer in a simulation exercise.

GOAL 4.0: To evaluate opportunities for employment and training in business occupations in terms of personal interests and abilities

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 3	Level 4
4.1 To learn about entry-level and advanced employment opportunities in each of the general categories of business occupations	Lists five categories of business occupations and several job titles within each category.	Describes the differences between entry-level and advanced positions within a selected category of business occupations.

OBJECTIVES	Level 3	Level 4
4.2 To become aware of mental, physical, and personal characteristics that are commonly valued in business	Lists characteristics such as manual dexterity, alertness, honesty, loyalty, and perseverance as those that are commonly valued by employers of secretaries.	Lists mental and personal characteristics valued by employers when considering employees for promotion in clerical occupations.
4.3 To identify specific requirements and additional background required for entry into occupations	Researches and lists specific skills and educational background required for entry into the accounting field.	Identifies several educational institutions where advanced training in the field of accounting can be obtained.
4.4 To identify training or experience that is required or desirable for advancement in occupations	Researches and describes a career ladder in a specific business occupational category.	Lists the training and experience required for advancement from an entry-level business occupation to a higher level position.
4.5 To describe how various career choices affect the environment and its resources	Gains firsthand experiences with various agencies in the community and evaluates the effect of their operations on the environment (e.g., federal and state resource management agencies, factories, service organizations).	Evaluates career alternatives as to their effect on the environment (e.g., park rangers, environmental technologists).
4.6 To select courses, programs, or schools appropriate to personal qualifications, interests, and career plans	Uses the high school course description booklet to select business courses.	Identifies courses necessary for employment in chosen occupation.

ENVIRONMENTAL

GOAL 5.0: **To use job search techniques successfully**

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 3	Level 4
5.1 To demonstrate knowledge of sources for finding employment (e.g., school placement service, friends, personnel offices, employment agencies, classified ads)		Develops a plan for a job search that includes the use of several sources.

OBJECTIVES	Level 3	Level 4
5.2 To demonstrate knowledge of steps for applying for a job (e.g., letter of application, data sheet, application blank, interview, follow-up)		Writes an application letter that is original, conveys the appropriate message, and meets standards of mailability.
5.3 To demonstrate ability to fill out an application blank and to prepare a letter of application, a personal data sheet, and a follow-up letter		Prepares and types data sheet including personal information, education, employment, experience, activities, and references accurately and in an acceptable format.
5.4 To demonstrate ability to carry out an interview when applying for a job (e.g., dressing appropriately, taking necessary documents, knowing what to say, when to leave, and how to follow up)		Discusses qualifications for a specific job in a concise, articulate manner.

GOAL 6.0: To use appropriate business principles, procedures, and skills in managing personal affairs

CONSUMER

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 3	Level 4
6.1 To keep records of personal income, savings, and expenditures, and to prepare a personal budget	Uses one method to record income and expenditures for self or others over a two-month period.	Prepares a budget based on perceived needs and a specific income.
6.2 To demonstrate the ability to manage a personal bank account (e.g., complete forms, make deposits, keep records)	Writes checks to pay for purchases in a simulation exercise.	Uses the bank statement and returned checks to balance records in a simulation exercise.
6.3 To demonstrate knowledge of types of investments (e.g., bank accounts, credit union shares, real estate, stocks)	Summarizes advantages and disadvantages of different types of investments.	Analyzes the distinguishing features of savings and investment plans available from different institutions.

CONSUMER

OBJECTIVES	Level 3	Level 4
6.4 To demonstrate knowledge of factors involved in planning an insurance program (e.g., coverage, amount needed, cost)	Identifies personal risks for which insurance is needed.	Evaluates various insurance programs that would assist in the achievement of long-term financial goals.
6.5 To demonstrate knowledge of the elements and types of contractual agreements and the personal responsibilities in completing a contract	Identifies important items a person should look for when signing a credit contract.	Assesses legal responsibilities and obligations stated or implied in several contracts.
6.6 To demonstrate knowledge of the sources and kinds of credit and criteria upon which credit approval is based	Lists advantages and disadvantages of borrowing from others.	Explains how credit ratings are determined and how they affect one's ability to obtain credit.

GOAL 7.0: **To gain knowledge and skills necessary to perform the personal, social, political, economic, and ecological responsibilities of a citizen in the conduct of business affairs**

SAMPLES OF LEARNER BEHAVIORS

CONSUMER

OBJECTIVES	Level 3	Level 4
7.1 To demonstrate knowledge of the ways in which federal and state laws regulate credit	Identifies risks taken when lending or borrowing money.	Cites major federal and state laws which regulate consumer credit.
7.2 To demonstrate knowledge of personal, societal, and marketing factors which influence the purchase of goods and services (e.g., age, sex, needs, status, economy, advertising, pricing)	Identifies factors that influence choices when buying products or services.	Interprets effects of the increasing complexity and sophistication of the marketplace on consumers.
7.3 To demonstrate knowledge of alternatives open to consumers interested in preventing or correcting consumer abuses (e.g., reports, participation in consumer interest groups, Better Business Bureau, legal remedies, social action)	Identifies where a consumer might go for assistance when sellers fail to respond to reasonable requests for recourse.	Examines ways in which consumer protection agencies and consumer organizations assist consumers with legal problems and provide avenues of recourse.

CONSUMER

OBJECTIVES	Level 3	Level 4
7.4 To demonstrate knowledge of the rights of both sellers and consumers	Examines ways in which the government protects the consumer.	Explores ways in which competition can act as a control on quality and prices of goods and services.
7.5 To demonstrate knowledge of the economic system in the United States including concepts of capitalism, free enterprise, and supply and demand	Identifies personal roles as consumer and producer in the economy.	Explores ways in which competition can act as a control on quality and prices of goods and services.
7.6 To demonstrate knowledge of the ways in which state and local governments regulate business structures and practices (e.g., taxation, licensing, zoning)	Describes legal requirements for establishing a specific business.	Analyzes ways in which business tax rates vary with the type of tax levied.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Vocational Association (A.V.A.)
2020 N. 14th St.
Arlington, VA 22201

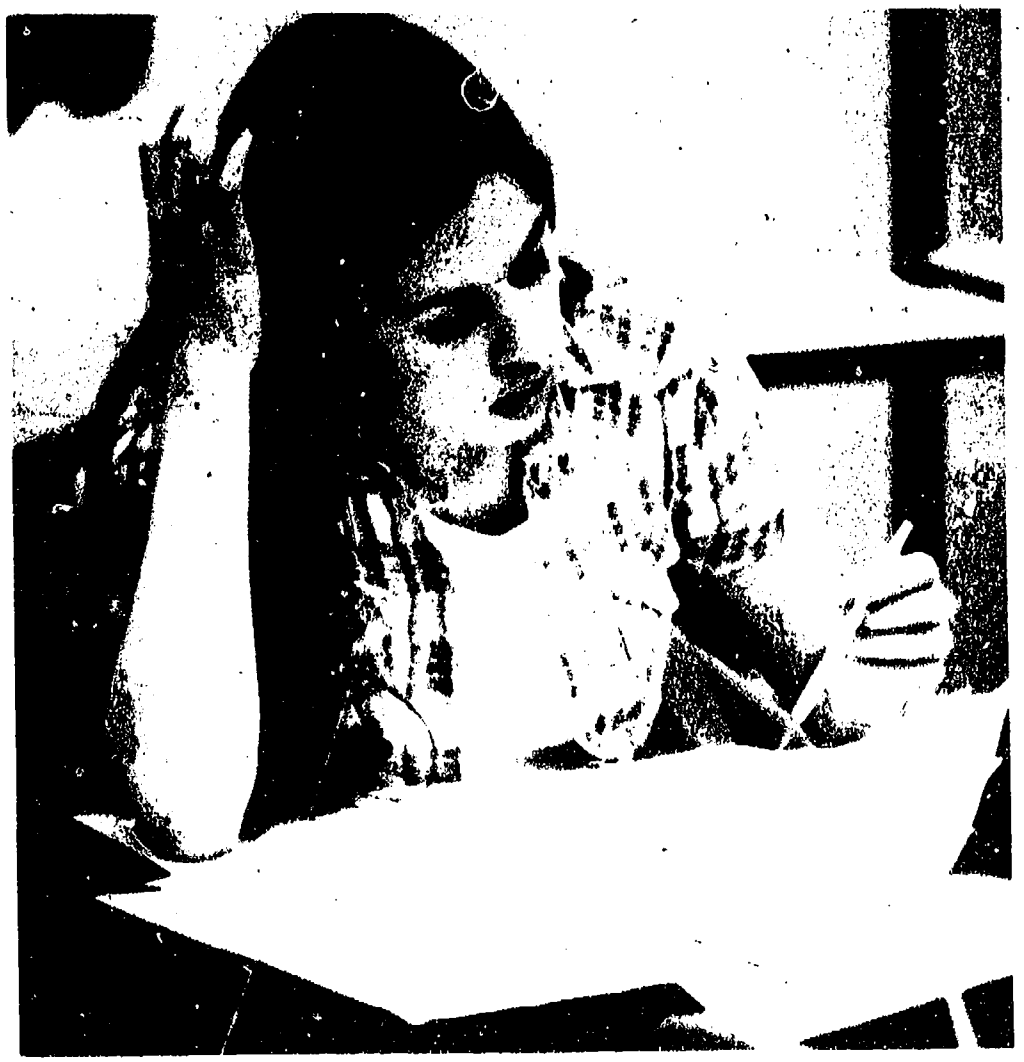
Publication: **Vocational Education**

California Business Education Association (CBEA)
P.O. Box 633
Los Altos, CA 94022

National Business Education Association (NBEA)
1906 Association Dr.
Reston, VA 22091

Publication: **Business Education Forum**

CAREER EDUCATION



POINT OF VIEW

The primary purpose of career education is to assist students in the development of their careers through a collaborative effort that includes school, home, and community. Career education is a process that begins in early childhood and continues after formal schooling throughout the life of an individual. Educators from each curriculum area cooperate in providing a broad approach to the economic, social, and psychological development of all students.

Career education is not an add-on to curriculum. It is infused at all levels into many aspects of each subject matter area. Subject matter specialists and career educators cooperate to analyze a program for content and instructional strategies that help students develop the knowledge and skills they need in planning and implementing their careers. Additional content is infused into instruction, guidance, work experience, and extracurricular activities.

With the cooperation of business, industry, labor, and other community resources students are offered opportunities to assess their capabilities and aspirations; to develop goals for personal, social, educational, and occupational development; to make choices about life-styles and values; and to develop decision-making and problem-solving skills in relation to career development.

Career education is unique in its reliance upon collaboration among educators, and between the school and the community. Each group brings a different expertise to this endeavor. Both the school and the community profit from this collaboration and increase the chance for success in their common goal of career satisfaction for all individuals.

GOAL 3: **To weigh significant factors in career-related decisions including personal interests, aptitudes, and abilities, and the implications of the decision alternatives for life roles as citizen, user of leisure, and family member**

LEVEL 1

The teacher in a second grade class is developing students' awareness of the variety of occupations which people are employed in within the community. The class takes a few field trips to see and interview people at their places of work. Groups of students develop reports about these trips and the class makes a chart, using materials from a variety of sources, to describe and classify the various occupations. The class discovers that it is possible to classify a single occupation in more than one way. For example, occupations can be classified by the training required as well as by the skills that are essential for successful performance.

The teacher develops a set of worker cards briefly describing one occupation on each card. The information on the card is taken from the chart which the class develops. The teacher distributes the cards and small groups of students discuss among themselves how to classify the occupations. One group decides to sort the cards into two categories—producers of goods and providers of services. The teacher asks the other group to sort their cards using the same categories. Afterwards, the groups compare the cards in each category.

As a follow-up, the students look through magazines and newspapers and cut out pictures of people at work. The pictures are put in a box and used as material for independent activities such as sorting or story writing. Students record the categories which they have used for sorting on a card in the box.

LEVEL 2

The teacher in a fifth grade class is developing learning experiences that will enhance children's understanding of the different ways in which occupations can be described. For example, in one activity students group themselves according to physical differences (e.g., height, weight), likes, dislikes, hobbies, leisure time, and preferred activities in school. The results are recorded on a chart. Students analyze the chart for any consistencies among the groups.

In another activity, students keep a diary of their activities for one week. Each student shares the diary with the class and the group develops a report about the variety of activities in which students were engaged. Activities are grouped into a number of categories and, subsequently, the group relates the categories to job titles. At another time, the students use these categories as the starting point for a brainstorming session about the differences in jobs such as training required, salary, responsibilities, advantages, and disadvantages.

LEVEL 3

Students in an eighth grade class develop a plan for obtaining information about a number of jobs. Afterwards, each student selects a career area with personal interest, and outlines a process on "how to obtain a job." The following list includes examples of the information the students may decide they need to develop a description of the jobs.

- Name of occupation
- Description of work to be performed
- Educational requirements
- Training time necessary
- Worker traits
- Working conditions
- Identification of industries which hire these workers

LEVEL 4

Students in a twelfth grade class are studying about a number of careers which they have an interest in examining in terms of further education and training. They identify various persons in the community who are knowledgeable about these occupations. They invite these persons to come and speak to the class about different aspects of each occupation. Prior to each visit the students brainstorm about the types of information in which they are interested. A list of questions is sent to each speaker. The questions include requests for information about specific requirements (e.g., educational background) and more general information (e.g., nature of work, personality traits).

As part of their study, students read a number of books on job search techniques. They use the information in discussions to design resume forms that are suitable for different occupations about which they have studied. Each student completes a resume which is reviewed by the class for form and content.

The students ask several speakers to send them application forms which are used by the personnel offices in the different companies the speakers represent. Each student completes the different application forms and, again, the class reviews and discusses the results, using criteria which the speakers have given them for completeness of the information and neatness.

They also ask each of the speakers to talk about interview procedures. They use the information given by the speakers in role playing interview situations.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: To understand and value the importance of work for the individual and society

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To recognize the importance and contribution of all work to society	Describes work performed at school and home.	Identifies different kinds of work people do and some contributions each one makes to the community (e.g., telephone installer, trash collector, nurse, delivery person, police officer).	Describes the impact of work on one's life and the need to make a meaningful career choice.	Demonstrates appropriate behavior for working with/without supervision and for working independently/cooperatively.
1.2 To demonstrate understanding of the wide range in degree and kinds of satisfaction derived from school and work	Describes feelings when completing a task successfully.	Describes how work roles contribute to personal well-being.	Analyzes individual occupations for growth and development opportunities and describes the interrelationship among occupations.	Gives examples of how the quality of work can affect vocational or professional status.
1.3 To understand the contribution that individuals' roles make to group or community success	Identifies jobs necessary to maintain the community (e.g., grocer, teacher, police officer, street maintenance worker).	Demonstrates ability to work cooperatively with other members of a group to accomplish an assigned task.	Identifies the interpersonal skills required for a specific occupational title.	Discusses job teamwork, its relation to overall production, and ways of building good personal relationships with other employees.

GOAL 2.0: To develop knowledge and understanding of the relationship of the career role of worker to other career roles and life-styles including citizen, family member, and user of leisure

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To understand roles of self and others as family members, users of leisure, students, and citizens	Gives examples of good citizenship at home and in school.	Compares the various leisure-time activities of family members and friends.	Identifies rights and responsibilities of oneself to others in a family or school setting.	Discusses the consequences of failing to fulfill responsibilities to family members or friends.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.2 To understand the ways in which an occupation contributes to life-style and personal fulfillment	Describes ways in which an earned salary can be used to enhance life-style and personal fulfillment.	Identifies occupations in different clusters and compares the rates of pay of each.	Compares a variety of life-styles with specific occupations to determine which life-styles would be realistic for each occupation.	Identifies an occupation and develops a budget that includes expenditures for living needs and leisure-time activities, and income based on the typical salary received in occupation.
2.3 To demonstrate positive attitudes about various life-styles and social and work roles at different occupational levels	Identifies three occupations that provide services for people in the community.	Discusses work roles of doctor, nurse, therapist, technician, and medical receptionist and describes probable life-styles for each of these occupations.	Analyzes the relationship between occupations and life-styles.	Interviews someone employed in a particular occupation about opportunities for entry and advancement in that occupational field.

GOAL 3.0: **To weigh significant factors in career-related decisions including personal interests, aptitudes, and abilities, and the implications of the decision alternatives for life roles as citizen, user of leisure, and family member**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To assess personal capabilities in terms of aptitudes, skills, and interests in relation to career choices	Identifies likes and dislikes in school and home activities.	Describes the influences that have led to the development of interests.	Relates interests and activities to potential career choices.	Selects a job or role based on personal aptitudes, interests, or abilities.
3.2 To become aware of factors that have some influence on career options (e.g., personal characteristics, training requirements, racism, sex discrimination)	Identifies similarities and differences existing in home and school roles.	Researches three jobs and identifies factors that may influence career choice for each (e.g., biologist, truck driver, bookkeeper).	Identifies factors that influence career decisions (e.g., life-style, training required).	Demonstrates ability to reassess career plans at intervals and change if necessary.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.3 To use a decision-making process in solving personal and career problems	Identifies components of the decision-making process.	Applies the decision-making process to home and social-related problems.	Applies the decision-making process to a study of careers.	Uses the decision-making process to identify career possibilities.

GOAL 4.0: **To develop knowledge and understanding of the physical, psychological, and educational requirements of a variety of occupations**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To demonstrate knowledge of the U.S.O.E. clusters of occupations	Identifies various occupations within the agricultural cluster.	Compares the duties, working conditions, and benefits to society of the occupations of logger, forest ranger, and sawmill operator.	Compares occupations in the agricultural cluster with those in the construction cluster.	Selects a specific occupation from one of the clusters and observes someone actually working at that job.
4.2 To recognize the relevance of process and content in a school program to occupational requirements	Identifies ways in which oral communication skills are used in occupations in the agricultural cluster.	Identifies ways in which reading skills are used by loggers, forest rangers, and sawmill operators.	Identifies several occupations in the construction cluster and lists ways in which listening skills are important in each of them.	Writes report about the importance of writing skills in specific occupations within the construction cluster.
4.3 To develop basic knowledge, habits, and attitudes needed for competence in a variety of occupations	Identifies acceptable and unacceptable behaviors and attitudes for grocery clerks.	Identifies examples of work habits and attitudes necessary for successful entry into the occupation of firefighter.	Identifies attitudes, behaviors, and educational background necessary for success in the occupation of accountant.	Describes the differences in knowledge and skills required at successive levels within an occupational category.

GOAL 5.0: **To acquire job acquisition and marketable skills leading to entry-level employment or enrollment in advanced education programs**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 3	Level 4
5.1 To demonstrate appropriate job acquisition skills (e.g., filling out an application, preparing a personal resume, appropriate grooming)	Lists and describes the various job acquisition skills needed when looking for employment.	Completes a sample employment application form neatly and accurately.
5.2 To develop competencies needed for entry into the labor market or for entry into the next educational level	Interviews employees in an occupation and prepares a list of competencies required for the job.	Demonstrates competencies for an identified entry-level occupation.

CONSUMER EDUCATION

POINT OF VIEW

The major purpose of a consumer education program is to help students develop a satisfying life-style. Life-styles are determined by personal values and goals and wise choices in the use of resources that are available for achieving those goals.

A consumer education program helps students determine the costs and benefits of different choices of life-styles. They develop an awareness of the opportunities and responsibilities which they have as members of a community. They also become knowledgeable about economic and environmental factors which affect and are affected by different life-styles. Part of this knowledge is based on an understanding of how the economic system operates in this country and a recognition of the impact which that system has on the cultural and social aspects of society. On a different level students develop knowledge about the interrelationships between an individual's choices in developing a life-style and the public welfare. For example, understanding the complex connection between taxes and recreational facilities, and between motorcycles and the environment can help individuals make more responsible choices.

Exploration of career possibilities is another important part of a consumer education program. Students learn to assess their personal capabilities, limitations, and interests in terms of choosing careers that will help them achieve satisfying life-styles.

VIGNETTES

GOAL 7: To analyze ways in which the quality of the environment affects and is affected by the life-styles of individuals

LEVEL 1

In the following activity, teacher and students develop a chart which is a record of the supplies that are needed for a period of one or two weeks in the classroom. In an opening discussion, the teacher asks the group to make a list of the materials which they might use during a typical day in school. Items such as paper, pencils, erasers, and crayons are recorded down one side of the chart. The days during which the survey is to be kept are listed across the top of the chart.

During the discussion, the teacher asks each student to make an estimate of the supplies that will be needed for personal use during the period of the survey. For example, the students estimate the number of pencils or the number of sheets of paper for writing or drawing that they will need. The estimates for each item are totaled by a student committee and the teacher writes the estimate on the right-hand side of the chart.

At specified times during the day, members of the class record the amount of supplies which have been used. This should be done twice a day, before lunch and before going home in the afternoon, to assure accuracy. At the end of each week, the numbers are totaled for each item.

At the end of the survey period, the consumption figures are totaled for each item and the group discusses the results. The teacher asks the students to think about whether or not they could use fewer supplies during another survey period of the same duration. The students brainstorm ways in which they could reduce consumption. For example, they might use both sides of paper or they might cut the paper into smaller sizes. After they have recorded several ways in which they might conserve supplies, the group designs another chart and conducts another survey. At the end of the second survey, they total the figures for consumption and compare the results with those of the first survey.

LEVEL 2

The students in a fifth grade class are preparing for a "consumer education dig" on the school grounds. They begin by touring the school grounds and making a list of all the litter which they can see. They divide the school area into zones and groups of students are assigned to patrol each zone. In a discussion, the teacher helps the students to work out a plan for the dig. The students decide:

- To collect the litter at specified times each day
- To sort and classify the litter into disposable and nondisposable groups
- To keep a count of the types and among of litter collected during the course of the project
- To compare the appearance of the project area with adjacent areas before, during, and after the project using photographs and written reports
- To identify the major causes of pollution in the school area
- To create a collage using the collected litter
- To create a report using photographs and written materials that will be attractive and easily read in order to inform the rest of the school about the project

LEVEL 3

A fifth grade class is studying the effects which the byproducts of their consumer choices and activities have on the environment of persons who live and work adjacent to the school area. At the beginning of the study the students list the areas in the neighborhood where school-age children might congregate in numbers. Playgrounds, street areas used for play, and refreshment concession areas are listed on a chart. Afterwards, the teacher assigns groups of four students to study the pollution in each area. Two students in the group are designated to take slide photographs of the area. The other two students are designated to list all litter and other pollution in the area and to describe the effects which the pollution has on the appearance of the area.

After visiting the assigned area each group works separately to coordinate the slide photographs with the material in the written report. The reports of each group are combined in a single report which is presented to the school.

After the presentation, one group of students leads a discussion asking members of the audience to respond to the following questions:

- What did you see in the pictures?
- How do you feel about it?
- Why do you think these things happen?
- Did you ever participate in an activity like this?
- How would you feel if this were done to your house or property?

- What are the costs of vandalism to property owners for repairs; to taxpayers in taxes; to consumers in loss of services and goods; and to the community in the quality of the environment?

LEVEL 4

Students in a twelfth grade class are studying the advantages and disadvantages of the automobile as the primary form of transportation. At the beginning of the study the students are asked to think of the major problems which automobiles create for our society. Following is a list of five major ideas generated by the group:

- Valuable land is used for freeways, highways, and parking lots.
- Automobile exhaust pollutes the air.
- Automobiles cause traffic congestion.
- Automobiles consume fuel and other natural resources.
- Automobiles discourage the development of public transportation systems.

Afterwards, the ideas are typed on a ditto sheet, run off, and distributed to the class. Each student scores the items for importance on a scale from one to five. A score of five indicates the problem is acute. A score of one indicates the problem is not serious. The scores are tallied and reported to the class.

In a subsequent period, students discuss sources for public money to finance efforts to reduce pollution caused by cars. The group agrees on five sources:

- Special taxes such as gasoline or road taxes
- Bond issues for the sole purpose of financing rapid-transit projects
- User fees for riding on a bus or train or using freeways
- Special tax on purchase of cars
- Graduated tax on cars based on size of the engine

Later, the teacher assigns five questions for students to discuss as a group. They takes notes during the discussion and afterwards each student writes a response to one question. The issues are:

- Who will bear the major financial cost?
- Who will benefit most?
- Will those who benefit most pay the most?
- Who will be hurt the most?

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To relate personal and family values, goals, and resources to a desired life-style**

	SAMPLES OF LEARNER BEHAVIORS			
OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To analyze personal values and goals in relation to life-styles	Identifies own preferred activities and the purposes for which money is being saved.	Distinguishes own wants and likes from those of others.	Identifies personal abilities and interests that will help to achieve goals.	Identifies personal values and goals which have shaped present life-style.
1.2 To assess the resources for achieving and maintaining a desired life-style	Identifies personal resources that would be used to obtain a present for mother or father.	Identifies personal resources which could help to accomplish one identified goal.	Analyzes ways in which a resource such as time can be substituted for a more limited one such as money.	Illustrates how different forms and combinations of resources can be used to produce similar satisfactions in meeting wants and needs.

CONSUMER EDUCATION

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.3 To relate effective decision-making to creative use of consumer resources in achieving a desired life-style	Identifies likes and wants when faced with a consumer choice.	Differentiates between needs and wants when making consumer choices.	Applies steps in the decision-making process to consumer choices.	Adapts the decision-making process to the nature of the choice and the resources involved.

CAREER

GOAL 2.0: **To assess potential satisfactions and financial benefits of a career choice in terms of personal values**

	SAMPLES OF LEARNER BEHAVIORS			
OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To relate occupational opportunities to personal values, goals, aptitudes, and interests	Describes own preferences for activities.	Identifies personal skills and competencies which contribute to the family.	Assesses personal traits and abilities which could contribute to future success on a job.	Relates career goals to personal values, interests, aptitudes, and abilities.
2.2 To relate career choices to the economic status and life-style of an individual or family	Identifies family members who work outside the home for income.	Identifies sources of personal income and how it is used.	Explores personal traits, abilities, and skills which might be used to earn money.	Relates investment of time and money in continuing education or training to increased employment opportunities.

GOAL 3.0: **To relate financial management—including effective use of consumer credit, savings, investment, and insurance—to increased consumer satisfaction and accomplishment of goals**

	SAMPLES OF LEARNER BEHAVIORS			
OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To develop a financial plan based on values, goals, and present or future income	Keeps a record of money received and what it is spent on.	Develops a simple plan for the use of spending money.	Establishes priorities based on needs and wants for the use of personal spending money.	Develops a financial plan based on personal values, goals, and present or future income.
3.2 To relate effective use of savings, investment, and insurance programs to increased economic security	Describes goals for saving money.	Explains necessity to save money.	Identifies reasons for setting aside part of present resources to be used for future needs.	Develops personal savings or investment plans that reflect own life-style and goals.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.3 To develop a financial plan which includes the effective use of credit as an economic resource	Identifies objects and services regularly borrowed from classmates, friends, and family members.	Explains some ways of borrowing to extend resources.	Identifies risks taken when lending or borrowing money or other possessions.	Relates the use of consumer credit to the purchasing power of an individual.
3.4 To make informed choices in the marketplace that increase consumer satisfaction and economic efficiency	Identifies qualities to look for when making a purchase.	Identifies factors that influence choices in buying products or services.	Develops a list of useful shopping skills.	Chooses potential purchases on the basis of personal values, income, intended use, quality, and price.

GOAL 4.0: **To relate individuals' activities to the national economy**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To relate basic economic components and the operation of the economic system to roles of consumer, producer, citizen	Identifies people in the community who are producers of goods and services.	Explains role as consumers of goods and services.	Analyzes ways in which the economy is affected by personal consumption and production.	Analyzes how consumer choices affect and are affected by the economy.
4.2 To relate the role of financial institutions to the flow of money between segments of the economy	Identifies different money substitutes that can be used to obtain goods and services.	Identifies some of the functions of financial institutions in our society.	Examines the ways financial institutions affect and are affected by consumers' activities in the marketplace.	Evaluates functions of financial institutions as they relate to the economic concerns of consumers.

GOAL 5.0: **To relate availability and quality of community services to the quality of life of individuals, families, and communities**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.1 To analyze ways in which public and volunteer services in the community extend the resources of individuals and families	Identifies free community services such as parks and libraries.	Identifies consequences for leisure time and activities if there were charges for community services such as parks, libraries, and bicycle trails.	Identifies ways in which community services have enhanced the quality of life.	Evaluates the availability and quality of community services when choosing a place to live.

CONSUMER EDUCATION

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.2 To examine the consequences when voting on issues affecting the quality of community services	Examines reasons why people choose to buy goods and services collectively through taxes.	Describes ways in which taxes are collected for community services.	Describes the social benefits provided to all citizens through tax money.	Evaluates which programs and services should be provided through taxes for public use when voting on community issues.
5.3 To analyze the contribution of volunteer programs to the needs of individuals and families in the community	Identifies services contributed by volunteers in school or in the community.	Explores volunteer services that could be performed in the school, neighborhood, or larger community.	Examines volunteer services which would give the most satisfaction and enjoyment.	Plans personal time to include volunteer service in the community.

GOAL 6.0: **To make an informed choice among a variety of products and services in the marketplace**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
6.1 To make an informed choice among a variety of products and services in the marketplace	Identifies people or places helpful in obtaining information before deciding what to buy.	Identifies types of information to look for on product labels.	Evaluates sources of consumer information for accuracy and reliability.	Summarizes ways in which misleading advertising, inadequate labeling, and deceptive packaging restrict the consumer's right to full and accurate information.
6.2 To choose among a variety of products and services at fair and competitive prices	Compares similar products sold under different brand names.	Compares a variety of similar products before making a choice.	Analyzes business practices and government policies which influence the consumer's right to choose from among a variety of products and services at fair and competitive prices.	Communicates personal preferences to sellers and producers by selecting products and services which meet personal or family needs.
6.3 To exercise the right to safety by studying safety features before purchasing, following directions, and reporting unsafe or faulty products	Identifies safety features to look for when buying toys.	Examines safety features of products before buying.	Evaluates possible health hazards of various products.	Identifies governmental agencies which establish and enforce standards of safety for consumer products and services.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
6.4 To exercise the right to be heard by communicating needs, preferences, satisfactions, and grievances to business and government	Identifies steps to be taken when merchandise is unsatisfactory or defective.	Explains appropriate procedures for communicating consumer grievances to the business community.	Identifies where a consumer might go for assistance when sellers fail to respond to reasonable request for recourse.	Examines ways in which consumer protection agencies and consumer organizations assist consumers with legal problems and other avenues of recourse.

GOAL 7.0: To analyze ways in which the quality of the environment affects and is affected by the life-styles of individuals and families

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
7.1 To analyze ways in which the consumption patterns of individuals and families affect the quality of the environment	Identifies litter problems at school caused by the purchase of snacks.	Descscribes the effects of packaging on waste disposal.	Describes how paper and containers used by the fast food service industry have contributed to pollution and depletion of natural resources.	Evalutes the effects of consumption patterns on the environment.
7.2 To assume personal responsibility for protecting the environment	Identifies practices for reducing pollution.	Proposes a plan for eliminating pollution on the school campus and in the neighborhood.	Participates in community activities which improve the environment.	Evaluates willingness to make sacrifices to improve the environment and conserve scarce resources.
7.3 To understand the effect of the physical environment and the availability of natural resources on human health, comfort and well-being	Lists and describes the basic needs of all living things and describes how natural resources are used to supply these needs.	Describes the relationship between individual life-style choices, environmental health, and resource consumption.	Compares living conditions in other countries and at other times in history to contemporary American life in terms of effects on the environment.	Observes examples of individual and social behavior in a variety of national and worldwide situations. Describes the effect of these practices on the health, comfort, and well-being of people.

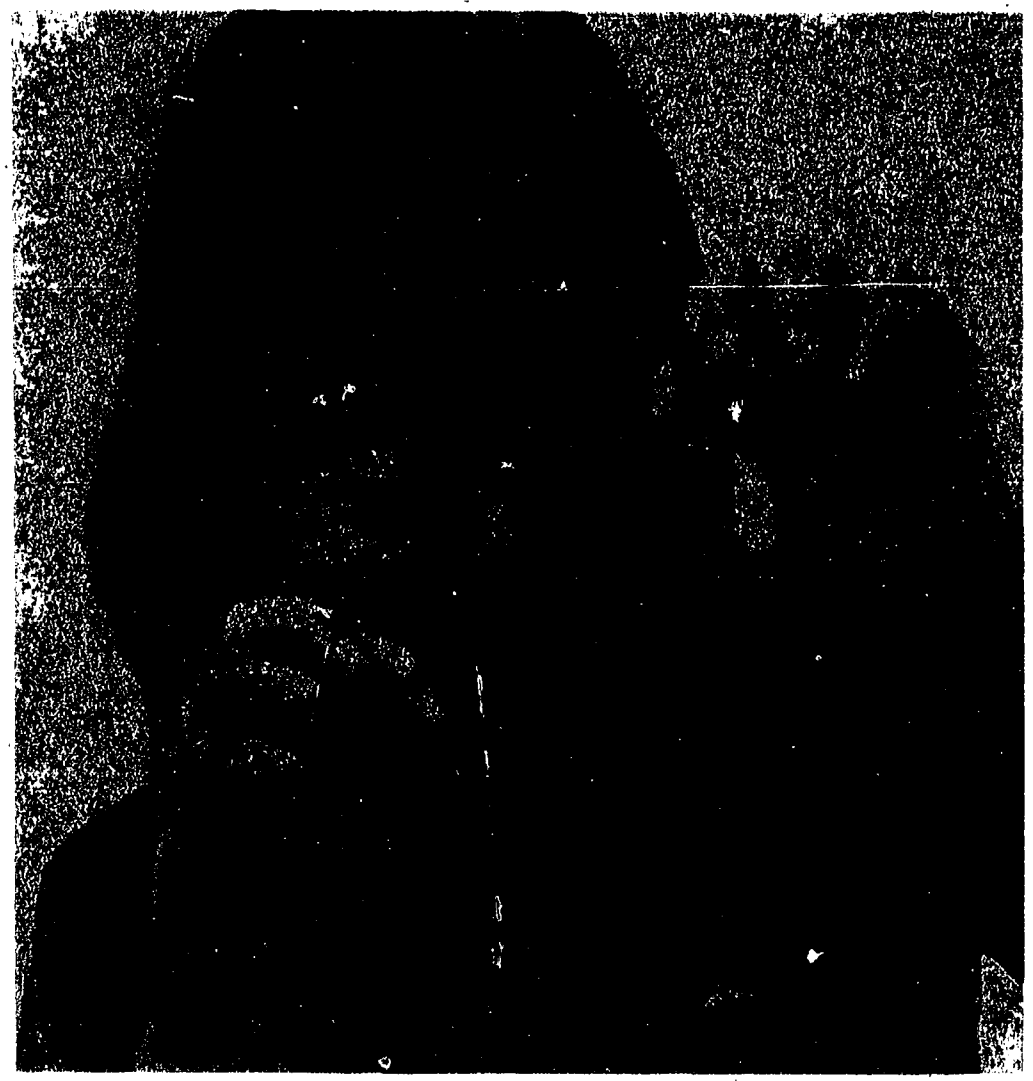
CONSUMER EDUCATION

GOAL 8.0: **To understand the ways in which mass media communicate social and economic standards and values which may influence the life-styles of individuals and families**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
8.1 To analyze the ways in which the mass media influence perception of life-styles and standards of living	Describes life-styles of favorite child characters on television.	Analyzes personal values of various television characters who are admired and emulated in own life.	Analyzes and compares life-styles of characters in several different television series.	Examines how increased sophistication of and concern for individuality rather than conformity can act as a countervailing force to the mass media.
8.2 To analyze the ways in which mass media affect consumption patterns of individuals and families	Describes personally desired products advertised on television and explains why they are desired.	Evaluates claims for selected advertisements, using information from other sources (e.g., nutritional value of sugar-coated cereals).	Analyzes cause/effect relationships implied in use of products in television commercials (e.g., use a particular cereal and be healthy).	Evaluates the social and psychological appeals of advertising directed toward teenagers.

DRAMA/THEATRE



POINT OF VIEW

Drama/theatre, in education, offers students the opportunity to express creativity through the use of dramatic imagination in problem solving and communication. Active participation by students in dramatic processes is emphasized from the beginning of schooling. Factual data and dramatic concepts are important insofar as they are related to actual participation in dramatic processes and enhance students' awareness of their cultural heritage.

Drama/theatre is an interdisciplinary approach to learning, offering techniques for learning from the past, for acquiring and communicating fresh insights, for cultivating sensitivity to the art, for applying basic principles of the art form, and for understanding human motivation and behavior in all ages and places.

The continuum of the drama/theatre process begins at the kindergarten levels and becomes increasingly sophisticated in involvement and practice. At the lower levels dramatic presentations can be infused into many curriculum areas. The process of drama/theatre serves as an aid to self-development, offering a unique opportunity for the re-creation of different times, places, and persons, using total physical, emotional, and mental involvement. At the higher levels drama/theatre frequently incorporates other art forms such as music, dance, design, and literature.

VIGNETTES

GOAL 5: **To develop skills for solving problems in both real and imagined situations using critical, evaluative, and creative methods of drama/theatre techniques**

LEVEL 1

The general goal of this activity is to develop understanding of the communication problems that exist when there is a language barrier between people. The teacher asks simple questions such as:

- What if someone came into the room who could not understand what is being said?
- How could he join the class?
- How could you show him he was welcome?
- Show how you would greet him.
- Show how you would make him understand what we are doing.
- Show how he would feel when he could not understand what was being said.

Some students are asked to demonstrate what could be done. Other students perform the role of the foreign student. After each demonstration the teacher asks questions such as:

- How did the actor show he could not understand what was being said?
- How did the actions make clear what we are doing?
- How could it have been made clearer?
- Show what would happen if we continued to do as was demonstrated in week, in a month, in a year?
- What could be done to make ourselves clearer to the one who could not understand us?
- Show us.

The activity can be adapted to a number of situations depending on the problem a teacher might want to present to the group. For example, the new person coming into the classroom could be deaf or to pose a different problem, the new person could come from different periods in history.

LEVEL 2

A fifth grade social science class is studying westward expansion in the United States. Students in a small group discuss how the cultural artifacts of the settlers affected the life-styles of native Americans. The group decides to develop a dramatic presentation in which an Indian woman watches a settler woman in a wagon train prepare a meal. Using improvisational techniques, several groups of students act out the situation. Whether the cultural artifacts are accepted or rejected at the conclusion of each presentation depends on the development of events within the scene.

Afterwards, the teacher asks the class to consider the historical accuracy of the different presentations. The students review their knowledge of the westward movement and apply it to this situation.

In this particular several students decide to develop a brief play in which they presen s of events from the life of a family moving west. They make props and costumes and outline the events for presentation using a book they have read for descriptions of the characters and general ideas for the events. After the presentation, the teacher asks two questions to help the class discuss the play.

- What are the implications of the situation for the future lives of each family member?
- What would be similar situations in the world today?

During the discussion the teacher focuses other questions on the clarity and organization of the presentation.

LEVEL 3

The teacher in an eighth grade class selects several historical situations for dramatic presentations by different groups of students. For example, one situation is a debate to determine whether Napoleon should be executed or exiled to St. Helena. The teacher specifies the playing area and time limit. The students develop the characters and the arguments in the debate using resource materials which describe the historical context of the situation.

With this background, the students use improvisational techniques to play out the situation. Afterwards, the class evaluates the presentation in terms of the historical accuracy of the arguments and the effectiveness of the presentation.

LEVEL 4

A twelfth grade class adapts the poem *The Highwayman* for dramatization. They develop a detailed outline specifying the characters, their actions, emotions, and general demeanor. Beginnings and endings of scenes are also specified. The scenes are acted out spontaneously. Afterward, the performance is evaluated by the total class and replayed until it is satisfactory. Finally, it is presented to other classes in the school.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: To develop understanding of oneself through use of the processes and concepts of drama/theatre

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
1.1 To use theatrical forms in expressing feelings, sensations, thoughts, memories, attitudes, fantasies, and values	Expresses specific emotions (e.g., anger, elation, disappointment) with individuality.	Recollects and re-creates the range of sensations attached to a past experience (sensory and emotional recall).	Portrays characters in imagined experiences using sensory and emotional recall of personal experience.	Develops characterizations from dramatic literature and personal responses to similar situations and presents these in formal productions.
1.2 To relate self to the world through theatrical forms of expression	Engages in constructive evaluation of dramatic activities guided by the teacher.	Uses simple terminology of theatre and evaluation to express observations and apply them to own work	Participates in evaluations of more complexity and depth, expanding the limits of observation and participation to include selected dramatic literature.	Uses selected works from fields of dramatic criticism, literary criticism, and aesthetics, and applies the principles of observation in evaluation of classroom dramatic activity.
1.3 To accept risk, review progress, and revise performance as strengths and weaknesses are revealed in dramatic presentations	Uses form of questions: Who? What? How? What other ways? to make qualitative evaluation of own endeavor.	Enlarges basic evaluation to include Why? What other ways?	Analyzes and adapts motivations in relation to others in dramatic presentations.	Evaluates effectiveness of own behavior patterns and determines methods for positive change.

GOAL 2.0: To promote responsible and cooperative interaction in society through the discipline inherent in the art of drama/theatre

OBJECTIVES	SAMPLES OF LEARNER BEHAVIOR Level 1	Level 2	Level 3	Level 4
2.1 To engage in theatre as a cooperative act among all individuals participating and responding within art	Decides with the group the events in an improvisation or from a story which are to be included in the dramatic activity.	Develops presentation of characters reacting to various events.	Creates dialogue, movement, and sequences to present story and character development.	Works alone or in collaboration to write a formal play evolved from group improvisations.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.2 To develop awareness of human behavior and use it as raw material in drama/ theatre productions	Plays a wide variety of roles drawn from daily life.	Interprets ideas and intentions of characters within short scenes and plays.	Determines motivation for external conflicts between characters in a scene or play.	Determines external and internal motivation for character behavior and uses this knowledge in performing roles in formal plays.
2.3 To participate in evaluating dramatic presentations with peers	Makes visible own view of actions of peers and adults.	Analyzes behaviors perceived in everyday life and recalled during play attendance or class dramatic activity.	Replicates behaviors observed in everyday world (to include media productions).	Increases perceptiveness, accuracy, analysis, and helpfulness toward peers observed in formal acting.

GOAL 3.0: **To grow in knowledge, skill, and sensitivity to theatre as an art form**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To become a more discerning, perceptive and responsive theatregoer and viewer of other theatrical media (film and television)	Analyzes and critiques live theatrical performances and those observed through media.	Develops a more perceptive and analytical manner in response to live theatre and other media.	Shows selectivity and judgment in attendance/viewing of theatrical forms.	Reveals greater depth in aesthetic, affective, and ethical responses as viewing experience accumulates.
3.2 To develop an understanding and appreciation of theatrical processes, concepts, and resources	Participates in evaluation of a theatrical work based on teacher-directed expectancies.	Uses the terminology of evaluation to assess the affective and ethical meanings of theatrical performances.	Relates growing awareness of aesthetic values and critical standards to theatrical activities.	Demonstrates ability to discuss dramatizations with more specific and precise recognition of exemplary qualities.
3.3 To develop aesthetic, affective, and ethical responses as experience with theatre accumulates	Reacts with enjoyment and enthusiasm to planned viewing experiences in theatre.	Describes a wider range of genres, styles, and periods found in plays and school productions without necessarily identifying them by these terms.	Evaluates with peers the overall worth and effectiveness of theatrical works viewed with regard to aesthetic and ethical standards.	Demonstrates taste, judgment, and awareness of form and value in selection of dramatic works which reveal the full range of human existence.

4.0: To communicate effectively to a variety of audiences conveying intent in verbal and nonverbal ways

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
4.1 To develop an understanding of rhythm, movement, individualized gesture, and facial expression as the external expression of an internal idea, intention, or feeling	Shows an awareness that the body can express many things: feelings, activities, and characters.	Shows original creative ideas and feelings through movements and makes them seem real, logical, and spontaneous.	Develops effective manipulation of facial expression and use of bodily gestures as well as total body muscle tone.	Expresses complex characterization and human emotional conditions through controlled expressive use of the body.
4.2 To develop use of the voice as an instrument for expression of meaning and feeling, whether in speech or nonverbal sound	Discriminates and conveys moods and feelings such as anger, joy, sadness, and fear through tonal variation.	Conveys appropriate feeling and energetic involvement in describing situations, dramatizing stories, reading aloud, or improvising character.	Uses projection, articulation, variety, and timing to dramatize theatre literature effectively.	Speaks memorized, complex prose and poetic drama effectively, imaginatively, and with understanding.
4.3 To select and interpret basic emotions for effective dramatic use	Projects visible and honest emotional reactions to immediate, recalled, or imagined sensations.	Demonstrates increasing awareness of emotional content and expression in behavior of peers in dramatic activity, attempting to eliminate cliches and preconceived responses.	Uses sensory and emotional recall with increasingly fine discrimination in the development and interpretation of a character.	Uses sensory and emotional recall with taste and objectivity in the development of a character in formal presentation.
4.4 To evaluate the drama/theatre experience in terms of the intent, effectiveness, and worth of the work (see also Objective 7.2)	Responds to the simple questions of dramatic content (What was it about?), and effectiveness (What did it mean to you?).	Develops deeper insight into questions of Level 1 and adds area of worth or overall value (Does it have a lasting quality?).	Develops understanding of theatre terminology and the connotations of the terms in areas of intent, structure, effectiveness, and worth.	Applies principles of Level 3 to theatrical performances and dramatic literature.

GOAL 5.0: To develop skills for solving problems in both real and imagined situations, using critical, evaluative, and creative methods of drama/theatre techniques

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
5.1 To discover patterns of relationships among people and their ideas, learning how to play many roles from fact or fantasy, to simulate a broad range of life experiences, and to evaluate the results	Responds spontaneously using creative and intuitive abilities to solve imaginary problems and evaluate performance.	Reinforces and explores in greater depth the range of experiences in Level 1 with increasing complexity of problems and finer evaluative techniques.	Uses structural components of drama (exposition, complication, crisis, resolution) in solving problems.	Incorporates other disciplines (literature, play writing) and formulates an approach, in writing, to recurring problems and suggested solutions.

GOAL 6.0: To learn from all societies, past and present, including multiethnic and multicultural groups which make up the American heritage

MULTICULTURAL

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
6.1 To discover the rich heritage of the theatrical tradition	Observes and shares in simple theatrical activities (puppets, song, dances) of many cultures.	Observes and evaluates theatrical productions, film, and television in a broad range of styles and periods, with adult guidance.	Seeks out theatrical material from a wide spectrum of periods and cultures for active re-creation.	Studies theatre history in texts and plays to discover how plays mirror society and behavior, and how the past and other cultures form drama/theatre of today.
6.2 To explore how the dramatist has communicated the timelessness and universality of the human condition	Uses creative dramatic activity based on teacher-selected stories, scenarios of dramatic literature, and children's plays to find reflection of own life and experiences.	Observes formal children's theatre productions and discusses how dramatists have made events and people of all history "come to life" for audiences.	Analyzes play scripts and performances to discover general themes and experiences which are common to all human beings.	Analyzes dramatic performances and character development in terms of common human relationships and motivations depicted by dramatists from all cultures and all times.

MULTICULTURAL

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
6.3 To perceive how the common past, as well as personal experiences can be captured and preserved in dramatic form to be re-created for audiences	Re-creates for peers the significant events of one's own life, using simple pantomime and improvisation.	Role-plays characters from the past and the present who have figured largely in the development of society.	Locates and enacts plays of an historical or biographical nature to link common backgrounds and experiences.	Studies and performs plays depicting significant events and persons from all levels and periods of society to understand the richness of a cultural and artistic heritage.

GOAL 7.0: **To approach other art forms with insight and appreciation, and to discover the relationships between the process of theatre art and processes of music, art, dance, and literature**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
7.1 To become aware of theatre processes and concepts related to those of the other arts	Discusses how sensory and emotional stimuli created in theatrical productions involve other arts.	Analyzes how line, space, movement, color, and rhythm, as found in art, dance, and music, are integral to all dramatic activity.	Utilizes concepts and techniques of art, dance, and movement to assist in the visual creation of dramatic literature.	Uses design concepts, directing and acting skills, preparation of scenery, costume design, lighting, and use of space in a synthesis of the arts and literature in a theatrical production.
7.2 To establish criteria for dramatic criticism and aesthetic judgment	Verbalizes preferences in recognition of elementary artistic standards for own dramatic activities.	Progresses from narrative to evaluative criticism of dramatic performances.	Recognizes and applies intuitive and learned judgments to the analysis of a piece of dramatic literature.	Produces written responses to own and other theatrical productions, evaluating artistic elements as they combine to form an aesthetically satisfying composition/performance.

DRAMA/THEATRE

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
7.3 To isolate and master processes and concepts of theatre art to develop a true sense of the art form	Adds color, line, and space in rudimentary costume and background to creative dramatic movement and pantomime activities.	Designs costumes, makeup, and settings for movement of actors in brief theatrical performances.	Analyzes processes of design, directing, and acting, and how they coalesce in a work of dramatic art.	Acquires limited mastery of artistic design concepts and techniques which enable an individual to develop special interests, as one member of a group responsible for formal productions.
ENVIRONMENTAL 7.4 To demonstrate skill in using creative expression as a means of bringing about constructive action to solve social and environmental problems	Learns songs, reads stories, views plays, and studies pictures on environmental subjects. Identifies and expresses positive and negative feelings generated by each example.	Writes simple stories and poems, writes or participates in plays, performs music, and creates art to express personal feelings about the environment and its resources.	Studies historical examples of how artistic expression influenced various social events (e.g., *Uncle Tom's Cabin*, slavery; "We Shall Overcome," civil rights; *Grapes of Wrath*, 1930's social conditions).	Identifies specific environmental problems in the community, state, nation, or world, and develops one or more forms of artistic expression to apply to specific environmental problems.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Theatre Association
Publication: **Theatre News**

Children's Theatre Association of America
Publication: **Children's Theatre Review**

Secondary School Theatre Association
Publication: **Secondary School Theatre Journal**

1029 Vermont Avenue, N.W.
Washington, D.C. 20005

California Educational Theatre Association
Richard D. Parks, Secretary/Treasurer
55 South Sixth Street
San Jose, CA 95112

ENGLISH LANGUAGE ARTS

POINT OF VIEW

Using the English language to think and to respond is the primary concern in the English language arts curriculum. Teachers' understanding of the various ways that students process and use language is as important as teaching the content of the course—language study, literature, and media. With students as the central focus, the English language arts curriculum addresses what students do with language, how students perceive and understand, and how their lives are dependent upon and shaped by language. The instructional program must take into account the students' divergent needs which result from the life experiences.

The process of using language refers to two types of interdependent activities:

- The observable skills of listening, speaking, reading, and writing.
- The unobservable skills of thinking involved in producing a product and the shaping processes of transforming, generating, and composing.

The language processes can also include the following:

- The receptive acts of listening to and reading about.
- The productive acts of telling about and composing about.

The content of English language arts provides substance for the study of how language operates, of literature, and of media. Unlike process, the content of English language arts can be categorized, cataloged, systemized, and isolated for examination (the novel, the sentence, the film).

English language arts should be a totally integrated program. The processes of language should work in concert with content and both should work in concert with the language user's and interpreter's experience.

VIGNETTES

GOAL 7: **To write with clarity and precision for practical, creative, and aesthetic purposes**

LEVEL 1

This activity is a writing experience prior to a class field trip.

The teacher records words that the students suggest about the field trip. When the list is complete, the teacher and students write three or four sentences using the word bank.

Afterwards the students, either individually or in pairs, write sentences on long paper strips. The students read their sentences aloud and add or change words for clarity with the help of the teacher and their peers. To complete the assignment, students rewrite their sentences and submit them for "publishing" on the bulletin board.

The sentences are typed on small strips of paper and placed in a box as an independent activity in which students use the sentences to develop stories.

LEVEL 2

Students are paired for a talk/write experience about a class field trip. Each pair of students is given a large piece of butcher paper and a large felt pen. The partners discuss the field trip with each other for five to ten minutes and decide what they will write about. Afterwards they write their thoughts on the paper, taking turns dictating and writing.

LEVEL 3

The purpose of this activity is to have students anticipate a field trip experience and use the material in writing letters. The teacher leads a discussion about a forthcoming field trip. The conversation touches on topics such as rules for behavior on the trip, how the group will travel, items each person should bring, what they will see, and how they will record the experience. During the discussion, two or three students act as recorders at chalk boards before the class. At first, as the students are talking, the teacher paraphrases their comments and the recorders note down what the teacher says. Later, the teacher asks different students to paraphrase points that other students are talking about.

After the discussion the students pair up or work individually writing letters in which they explain some aspect of the trip to someone such as the principal, a teacher, a friend, or someone who is unfamiliar with schools. The teacher assigns an audience to each of the writers.

The teacher works with each letter writing group to refine the wording, correct spelling, and check format for proper heading, greeting, etc. When the students read their letters aloud, the teacher asks the group to notice if the styles can be differentiated according to the audiences for the letters.

LEVEL 4

In this activity students use the editorial form for discussing their viewpoints about field trips. Prior to the field trip, the group notes what they will be doing on the trip and aspects of the trip which might be examined in terms of an editorial. The group has read editorials in different newspapers and magazines and each student is familiar with the form.

After the trip they discuss the experience and outline a viewpoint and supporting arguments for the editorial. The group discusses a few of the outlines to help each other in understanding how to go about clarifying the presentation of ideas in the editorial form.

After completing the first draft, students read their editorials to other members of the class in small groups. Members of the group offer constructive criticism to the writers about points such as the clarity of the thoughts and sentence structure. The second drafts are submitted to the teacher for comments before preparing final drafts.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To develop a sense of personal effectiveness in communication**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To develop a sense of self	Listens to self on a tape recorder.	Evaluates own voice by listening to self read a selection on the tape recorder.	Evaluates self after oral presentation to a group of peers.	Identifies own communication patterns after taped oral presentation and evaluation.
1.2 To participate in interpersonal exchanges to develop effective communication skills	Contributes and accepts ideas in oral group activity.	Practices roles of courteous listener and speaker (e.g., telephone conversation, introductions of peers).	Participates courteously and effectively in small peer group activities.	Expresses increased sophistication in discussion and presentation of topics ranging from immediate concerns to concerns of community and larger world.
1.3 To employ basic communication skills as a means of working with others to solve environmental and/or resource use problems	Talks to others and writes stories related to the maintenance of a clean and healthy school environment.	Writes letters to officials expressing ideas and concerns on resource and environmental matters. Uses written and oral means of communication to gain information relating to environmental problems.	Gathers information concerning communication methods in other countries and at other times in history and contrasts these with contemporary American practices.	Prepares and delivers effective written and oral communications to elected officials, representatives of resource management agencies, and the general public on environmental matters and resource use concerns.

ENVIRONMENTAL

GOAL 2.0: To develop a sense of social consciousness in communicating skills

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To develop accountability for ideas expressed	Explains reasoning underlying statements and actions (e.g., explain why characters behave as they do in a dramatic play situation).	Distinguishes between imagination and reality in recounting events.	Cites and uses contributions of peers during classroom discussions to further develop own ideas.	Gives appropriate credit to sources used in both oral and written expression.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.2 To develop social consciousness in communication	Participates actively in class discussions, respecing the rights of others.	Listens attentively to opinions of others. Asks questions to gain insight.	Learns that everyone speaks a dialect and that no one dialect is superior to another.	Maintains a friendly attitude while debating issues with strong emotional overtones. Acts as a "devil's advocate" where minority views are not otherwise presented.
ENVIRONMENTAL 2.3 To use creative expression as a means of bringing about constructive action to solve social and environmental problems	Learns songs, reads stories, views plays, and studies pictures on environmental subjects. Identifies and expresses positive and negative feelings generated by each example.	Writes simple stories and poems, writes or participates in plays, performs music, and creates art to express personal feelings about the environment and its resources.	Studies historical examples of how artistic expression influenced various social events (e.g., *Uncle Tom's Cabin*, slavery; "We Shall Overcome," civil rights; *Grapes of Wrath*, 1930's social conditions).	Identifies specific environmental problems in the community, state, nation, or world and develops one or more forms of artistic expression to apply to specific environmental problems.

GOAL 3.0: **To develop observing and listening skills in order to receive messages, both nonverbal and verbal**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To identify ideas or feelings expressed in words	Listens attentively to directions and relates them in order.	Restates the main points of a story read aloud to the class.	Paraphrases a message heard.	Identifies meaning in a spoken message as it is affected by the context.
3.2 To determine the ideas or feelings transmitted through nonverbal symbols	Identifies sequence of events in a pantomine.	Pantomimes feelings such as happy, sad, tired, joyous.	Follows nonverbal instructions.	Identifies body language used deliberately and incidentally by the speaker.
3.3 To retain key ideas and essential facts from the information presented in a communication situation	Listens to a story and then recalls major details a day or so later.	Reconstructs the main points of an oral communication.	Takes notes while listening to a short lecture.	Restates the supporting evidence of a communication at a later time.

GOAL 4.0: **To develop acting and speaking skills in order to send messages through both verbal and nonverbal means**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To communicate ideas and feelings effectively through the use of nonverbal symbols	Demonstrates a process using gestures.	Demonstrates a machine using pantomime.	Observes individuals in different positions such as sitting, standing, and interprets attitudes from body language when told to "freeze."	Uses body language deliberately to communicate attitudes and ideas.
4.2 To communicate ideas or feelings effectively through the use of words	Relates an enjoyable experience to the class.	Explains a process in proper sequence.	Presents a speech on a topic of own choice.	Uses language suitable to the audience, to the occasion, and to the purpose of the communication.
4.3 To coordinate verbal and nonverbal processes in communicating ideas or feelings	Uses both words and movement to describe a color, then demonstrates the color through movement.	Creates and dramatizes a story suggested by a picture in a magazine.	Presents the same message with different emotional tones (e.g., anger, sadness, happiness).	Adjusts techniques of communication to audience's ongoing response.

GOAL 5.0: To develop comprehension skills in reading

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.1 To develop oral language as a basis for reading comprehension	Listens to stories to gain information, receives and responds to instructions, and recalls significant details accurately.	Answers literal and inferential questions to extend thinking skills.	Describes and explains ideas in small peer group discussion.	Improvises dialog about an episode.
5.2 To identify words and their meanings through vocabulary development	Identifies and understands new words in context of a sentence and/or paragraph.	Recognizes and understands common synonyms, antonyms, and homonyms.	Expands specialized vocabulary in content areas.	Recognizes and understands both connotative and denotative meanings of words.
5.3 To develop word identification skills	Uses both auditory and visual discrimination to identify sounds and forms.	Uses structural analysis to identify and build on base words.	Identifies and uses affixes to change word meaning.	
5.4 To develop comprehension through sustained silent reading	Reads a story silently after having heard it.	Reads library books and magazines of own choice.	Reads menus, school newspapers, and daily newspapers in addition to trade books.	Chooses literary works to read, appreciating and understanding what is read.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.5 To generate ideas about a topic prior to reading	Answers specific questions posed by the teacher about what might happen in a story.	Brainstorms ideas about a story from the title and opening paragraph.	Anticipates the action of the characters in the next chapter of a book.	Lists specific information that can be anticipated in the development of the main character.
5.6 To interpret meaning through use of literal analysis	Identifies main ideas and supporting details.	Identifies the parts of the sentence that carry the basic meaning.	Identifies transitional words that indicate relationships among ideas and sentences.	Recognizes and uses indicators of definite and indefinite time.
5.7 To apply skills of critical and analytical reading	Summarizes a reading passage.	Distinguishes fact, fantasy, and opinion.	Analyzes political statements for use of superlatives, catch phrases, and derogatory or complimentary implications.	Identifies author's purpose and bias citing examples in the text.
5.8 To apply skills of interpretive comprehension	Gives a generalization for a group of details.	States a generalization about a short article and identifies supporting details.	Interprets advertisements, political cartoons, and comic strips, both visually and verbally.	Interprets figurative language in literary work.

GOAL 6.0: To use reading as a means of learning

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
6.1 To read in content areas through the application of reading skills	Studies specialized vocabulary and uses new words in sentences.	Identifies and uses topic sentences and supportive sentences.	Identifies and uses prefix and suffix endings for scientific words.	Identifies differences between general statements of a concept and factual support.
6.2 To adjust reading rate to the content of the material to be read and the purpose for reading	Reads a selection and lists important facts.	Skims written material to locate ideas rapidly.	Scans written material to locate specific ideas.	Adjusts reading rate to content and purpose.
6.3 To use dictionaries as a rich source of information built upon research about spoken and written language	Builds a dictionary of words needed in written work.	Uses guide words and interprets symbols and abbreviations in dictionaries.	Uses dictionaries to locate appropriate meaning to fit context, to discover the range of meanings for a given word, and to determine the meaning of affixes.	Discovers how words and meanings evolve by collecting examples of the derivation and alternative meanings in the dictionary.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
6.4 To apply study (locating) skills in using reference sources	Uses the table of contents, glossary, index, and bibliography of a book.	Interprets and reads maps, signs, posters, graphs, charts, and diagrams.	Interprets television, radio, and transportation schedules.	Uses guides and symbols to locate information in references such as dictionary, encyclopedia, thesaurus, readers' guide, atlas, and telephone book.
6.5 To use the library/resource center to attain desired information	Uses the library/resource center for pleasurable listening, viewing, and reading experiences.	Uses the appropriate parts of books to locate information (e.g., table of contents, chapter headings, glossary).	Locates materials using the cataloging system, special reference materials, and procedures for obtaining both print and nonprint materials.	Uses note-taking and organizational skills that permit effective use of information found.

GOAL 7.0: To write with clarity and precision for practical, creative, and aesthetic purposes

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
7.1 To use personal experiences and recollections for narration and descriptive writing	Dictates a personal experience to an adult and reads the story.	Writes narrative/descriptive paragraph about a personal experience.	Lists facts about an encounter, then writes a narrative about what happened.	Writes about a past experience such as a childhood memory as if it were happening in the present.
7.2 To organize ideas/concepts to clarify meaning	Arranges a series of pictures in a sequence.	Writes the directions for a recipe from a given list of foods.	Writes a paragraph that contains a topic or general sentence and supporting sentences.	Uses transitions to show relationships within the paragraph.
7.3 To use a variety of written forms for practical writing including letters, resumes, memos, and job applications	Tells and writes letter to parent with aid of teacher.	Writes letter to peer, teacher, or parent about career aspirations including qualifications to be achieved.	Writes letter of application to private or public enterprise(s) for a job.	Writes for a particular purpose such as job application, college entrance, and for a particular audience.
7.4 To respond in writing to ideas from literature and media	Relates own reaction(s) to story read and writes one or two sentences that express response to story.	Sketches the setting of a short story, then describes setting in a paragraph.	Composes an analysis of the events contributing to changes in the main character of a novel.	Writes a letter to the author of a novel stating the appeal of the book with supporting evidence.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
7.5 To write for a variety of audiences using appropriate forms and language	Writes to teacher and classmates.	Writes composition to share with peers in order to receive audience reaction.	Writes compositions for school literary magazine or newspaper.	Writes to local newspapers, public figures, and businesses for information or comment.

GOAL 8.0: To understand how language functions in order to express ideas

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
8.1 To develop the ability to build more complex utterances from simpler ones	Writes simple sentences using appropriate word order.	Combines several sentences into one sentence.	Expands sentences to achieve more richly textured sentences.	Writes sentences using a range of appropriate subordinating and coordinating structures.
8.2 To spell correctly and develop a sensitivity to the need for spelling correctness	Spells words correctly and asks for help when needed.	Spells words using sound/letter relationships.	Uses regular and irregular spelling patterns correctly.	Builds words by adding and changing prefixes and suffixes.
8.3 To understand how the English language with its Anglo-Saxon base is augmented by extensive borrowing from other languages and is constantly changing	Lists English words borrowed from other languages.	Identifies how new words come into the English language through technology and usage.	Listens to a recording of dialect mixtures and identifies words and phrases which are unique or are used differently among regional and ethnic dialects.	Develops list of present day slang words/phrases and identifies equivalent words/phrases which were used by grandparents' and parents' generations during their teen years.
8.4 To recognize levels of usage and use the levels appropriately	Uses appropriate language to greet the principal, the teacher, and other adults.	Dramatizes a situation in which formal language is required.	Listens to a recording of various statements and identifies the purpose of each through the choice of words and tone.	Writes three letters—to a friend, an adult, and a newspaper—about the same topic using appropriate language.
8.5 To understand how rules for language usage operate systematically and to use the conventions of edited American English appropriately	Supplies the conventions for beginning and ending sentences in a short paragraph.	Writes sentences from dictation using appropriate punctuation.	Categorizes a list of words under the generalizations governing capitalization.	Composes a fictional story, factual report, or narrative, which uses a range of punctuation symbols.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
8.6 To write legibly and with reasonable efficiency	Identifies examples of good handwriting from a variety of samples.	Practices good handwriting in routine practice, classwork, and homework.	Experiments with speed of writing from dictations transmitted at varying speeds.	Uses criteria to judge neatness, orderly arrangement, and good handwriting from a variety of samples.
8.7 To recognize the purposes for which language is used	Identifies symbols which communicate ideas and/or feelings.	Illustrates words with varying levels of abstraction (e.g., car, Ford, Pinto, green 1979 Pinto).	Analyzes a passage for the use of euphemisms and rewrites the passage for clarity.	Compares the meanings of words used in various contexts.

GOAL 9.0: To extend experiences through response to a variety of forms of literature and media

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
9.1 To respond positively to literature	Reads a picture book or a simple poem and describes the feelings experienced.	Identifies the different ways of doing and behaving illustrated in a short story.	Identifies several passages describing actions of a character and interprets those actions.	Writes a letter to the main character to explain how a personal experience was similar to or different from that of a main character.
9.2 To enjoy reading, hearing, and viewing literature	Reads, views, or hears recording of a literary piece, identifying favorite scenes.	Selects excerpts from favorite stories or dramas to act out before the class.	Reads self-selected books in school, finding pleasure and satisfaction in reading.	Reads both for information and recreation outside of school.
9.3 To extend experience through reading	Cites new knowledge gained from something that was read.	Reads self-selected material based on an area of interest and relates new information gained to knowledge previously possessed.	Compares and contrasts the situations portrayed in the literature with personal experiences.	Reads fantasy and science fiction works and contrasts them with reality.
9.4 To respond with increased sensitivity to and understanding of our multicultural society through experience with literature and other related forms	Reads and tells about the customs and life-style of a particular group.	Acts out folktales and legends of different cultures.	Reads and contrasts customs, life-styles, and arts of various cultural groups.	Reads historical fiction written by authors of other cultures or about other cultures.

MULTICULTURAL

ENGLISH LANGUAGE ARTS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
9.5 To gain knowledge of various genres and subgenres recognizing effective use of word choice and style, sound, and rhythm by different writers	Listens to a variety of stories read by teacher and discusses sound and rhythm of different writers' expressions.	Identifies imagery, sound, and diction in selected poems.	Reads and recognizes a variety of nonfiction forms (e.g., autobiographies, biographies, encyclopedias, historical selections).	Writes short selections, imitating various aspects of literature (e.g., point of view, characterization).
9.6 To relate personal values and experiences to values and experiences described in literature	Acts out the situation of a character in a story.	Presents an interpretation of a scene and relates it to personal experiences and values.	Writes a letter from the point of view of the main character.	Compares and contrasts values in two literary works with today's values.
9.7 To analyze the structures and conventions of television, radio, and film	Discusses a television program or film in class.	Writes a commercial using persuasive techniques.	Identifies and differentiates the purpose of editorials, human interest stories, news stories, and other forms.	Produces a television program or radio broadcast selecting the medium, storyboarding and scripting the production.
9.8 To develop through production an understanding of the structure and conventions of communication forms such as television, film, and broadcasts	Composes a story with pictures.	Composes a commercial, storyboarding the audio and visual.	Produces verbal or visual/verbal media to inform, persuade, or entertain selecting the medium, storyboarding, and scripting the production.	Identifies and uses the communicative effects of shape, focus, distance, angle, balance, composition, line, contrast, color, sequence, timing, and pacing in understanding and producing media.
ENVIRONMENTAL 9.9 To demonstrate skill in using creative expression as a means of bringing about constructive action to solve social and environmental problems	Learns songs, reads stories, views plays, and studies pictures on environmental subjects. Identifies and expresses positive and negative feelings generated by each example.	Writes simple stories and poems, writes or participates in plays, performs music, and creates art to express personal feelings about the environment and its resources.	Studies historical examples of how artistic expression influenced various social events (e.g., *Uncle Tom's Cabin*, slavery; "We Shall Overcome," civil rights; *Grapes of Wrath*, 1930's social conditions).	Identifies specific environmental problems in the community, state, nation, or world and develops one or more forms of artistic expression to apply to scientific environmental problems.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Association of School Librarians (AASL)
50 East Huron St.
Chicago, IL 60611

Publication: **School Media Quarterly**

Association for Educational Communications and Technology (AECT)
1201 - 16th Street, N.W.
Washington, D.C. 20036

Publications: **Audiovisual Instruction**
AV Communication Review

American Speech-Language Hearing Association (ASHA)
10801 Rockville Pike
Rockville, MD 20852

Publication: **Language, Speech and Hearing Services in Schools**

California Association of Teachers of English (CATE)
P.O. Box 4427
Whittier, CA 90607

Publication: **California English**

California High School Speech Association (CHSSA)
Larry Smith, President
Herbert Hoover High School
5550 North First Street
Fresno, CA 93710

Publication: **Bulletin**

California Media/Library Educational Association (CMLEA)
1575 Old Bayshore Highway
Burlingame, CA 94010

Publication: **CMLEA Journal**

116

California Reading Association (CRA)
3400 Irvine Avenue
Newport Beach, CA 92660

Publication: **California Reader**

California Speech Association (CSA)
Norman R. Page
Department of Speech Communication
California State University
Fullerton, CA 92634

Publication: **Concord**

International Reading Association (IRA)
6 Tyre Avenue
Newark, DE 19711

Publications: **Journal of Reading**
Reading Teacher
Reading Research Quarterly

National Council of Teachers of English (NCTE)
1111 Kenyon Road
Urbana, IL 61801

Publications: **English Journal**
Language Arts
Research in the Teaching of English

Speech Communication Association (SCA)
5205 Leesburg Pike
Falls Church, VA 22041

Publication: **Communication Education**

Western Speech Communication Association (WSCA)
Robert O. Hirsch, Executive Secretary
Arizona State University
Tempe, AZ 85281

Publication: **Western Journal of Speech Communication**

117

ENVIRONMENTAL EDUCATION

POINT OF VIEW

An environmental education program is concerned with aesthetics, values, and morality in relation to helping students understand and respect their interdependence with a finite and limited ecosystem. In developing this understanding, students are encouraged to define a personal life-style which is compatible with a healthy physical environment.

An environmental education program is future oriented. It is designed to give students firsthand, practical learning experiences in making observations, gathering data, and solving problems in relation to environmental-resource management. Students acquire the skills, knowledge, attitudes, and behaviors that are necessary to work independently or with others to control pollution, conserve resources, and otherwise protect everyone's right to live in a healthy, productive, and aesthetically satisfying physical environment.

An environmental education program is infused into a number of curriculum areas including science, social sciences, and the practical arts.

GOAL 5: ENVIRONMENTAL PROBLEM SOLVING — To develop the ability to create viable solutions to environmental problems and to work independently or cooperatively to implement them

LEVEL 1

Following a discussion of the detrimental effects of litter on human health and environmental beauty and the waste of resources it represents, a third grade class decides to learn more about these problems by developing a litter garden.

The students fence in a small plot of land on the school grounds. Examples of litter are found and placed in the litter garden. These might include an apple core, a piece of paper, a bottle, an aluminum can, a steel can, and a piece of a rubber tire. Identification cards are placed on each item with information about the name of the object, the composition of the object, and when it was placed in the litter garden.

The students observe the items in the litter garden each day and record what happens to each as it is exposed to the elements. At the end of the month the class evaluates the data they gathered and makes some generalizations based on their activities.

A time line is developed showing how long it took each item to decompose. At the end of the activity, questions such as the following are discussed:

- Which items broke down and went back into the environment? Which did not?
- Is litter pretty or ugly?
- A student brought in a 100-year-old bottle found on a weekend trip to the desert. What does this tell us about the need for disposal of such items?
- Which litter items can be recycled by nature? Which should be recycled by people?
- How does litter affect the health of pets, humans, and other animals?

LEVEL 2

A sixth grade class organizes and conducts a school-wide energy audit. They work with teachers, the principal, the custodian, and other staff members to develop ways of saving electricity, natural gas, petroleum, and other forms of energy. After the conservation plan is developed, sixth graders work with students in lower grades to make them aware of the program and of the need for cooperation. They also teach the younger students specific techniques for saving energy which could be practiced at school and home.

Professional assistance is obtained from the local utility company. Students learn to read meters and to apply various techniques for conserving energy. Representatives from the utility company also work with the school staff, supplying them with additional information they can use in extending the study of conservation.

The class keeps records on a monthly basis to determine how much energy is saved through the program. This information is reported to students in other classrooms. Groups of students from the sixth grade class lead discussions in other classrooms about how the program can be made even more efficient. Posters, written reports, and skits are developed to publicize the program throughout the school.

A newsletter is prepared by the students and sent home, keeping parents informed about the results of the program. Energy saving techniques that can be used at home are described in a newsletter.

At the end of the program, students evaluate the efforts and consider these questions:

- Is it possible for people to cut down on energy waste without too much inconvenience?
- Can energy conservation programs save money at school? At home?
- How could the money saved in school and at home be used?
- How does energy conservation help our country?
- Who in the community could help us save energy?
- Could we do a better job of saving energy by working together?

LEVEL 3

Eighth graders conduct a survey to determine what students and selected community members perceive as major environmental problems in their geographic area. A questionnaire is prepared and mailed to a number of people in the community. Students conduct interviews to supplement the information gathered through the questionnaires.

After all the data are gathered, the class defines one major problem which could be solved by parents, students, and community agencies working together.

Students tap the appropriate sources of expertise to learn how to analyze the problems in order to determine the effect it has had on environmental health. The best techniques for solving the problem are identified.

Students then develop plans for using various social mechanisms and institutions in the community to obtain appropriate action. The students ask

the following questions in developing the plan:

- Is it a legal problem? Are there laws which can be used in solving the problem? If so, what action is appropriate?
- Is it a political problem? Is legislation or action by elected bodies or officials appropriate? How can we get some action?
- Is it a problem of people's attitudes and behaviors? How could written, spoken, artistic, musical, dramatic, and other forms of communication be used to change these attitudes and behaviors? What means do we use to contact the public?
- Is it a governmental problem? What city or county agencies could be called in to help us solve it? What action is appropriate?
- Is it an economic problem? How could consumers working together solve it? Who or what group could organize the solution to such a program?

A plan for action involving several social agencies or institutions is developed and implemented. After a period of time, the action plan is evaluated. These questions are considered in the evaluation.

- Is independent action or community action most effective in solving environmental problems?
- Will people cooperate when the need is clear?
- What are the strengths and weaknesses of the various social processes in relation to solving environmental problems?

LEVEL 4

A contemporary problems class in a high school conducts a study of worldwide environmental and resource use problems. As an extension of this study, they examine information about careers in environmental management.

The basic information for defining the problems is gathered from teachers in the school through a systematic search of library materials. All areas of expertise which relate to environmental problem solving are covered. Outside authorities also are invited to speak about several topics which are defined beforehand by the group. These include science, technology, government, law, economics, and communication skills as they relate to the study of environmental problems.

Afterwards each student chooses an area of environmental interest for further study. The list of areas includes water resource management, energy production, wildlife management, chemical pollution, natural beauty, and historical resource preservation. The students use school and community resources to explore such questions as:

- What is the present status of my area of interest at state, national, or international levels? What are the trends?
- What social factors relate to this area of interest—values and ethics, government, economics, laws?
- How can I get involved?

Groups of students also explore career opportunities and interview people in professional organizations, governmental agencies, business, and industry to gather information that would help them define a personal and group orientation to environmental and resource management. Finally, each group of students develops a plan for action on environmental issues that includes information about how careers, activities at home, leisure activities, and political activities can be used to promote greater awareness of the issues.

After finishing the independent study, the class discusses ways in which they can share what they have learned with other students and with the community. One activity suggested by students is to develop a local Environmental Quality (EQ) Index similar to the one published by the National Wildlife Federation.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **NATURAL BEAUTY - RESPECT FOR LIFE — To develop an appreciation of natural beauty and aesthetically pleasing surroundings and a reverence for all forms of life**

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
1.1 To become aware of and value natural beauty	Observes, records, and describes feelings about examples of natural beauty observed in the school and community such as flowers, a beautiful sunset, and patterns in nature.	Creates a personal environment which includes examples of natural beauty. Expresses feelings about nature through various media such as creative writing, music, and drama.	Seeks experiences which provide for the enjoyment of natural beauty. Supports and works with others to preserve outstanding examples of natural beauty and of cultural and historical resources.	Considers aesthetics in career choices and recreational pursuits. Describes natural, historical, and cultural resources throughout the world. Discusses how individuals and society can work together to preserve and enhance resources, and becomes involved in these efforts as appropriate.
1.2 To respect all forms of life and treat all creatures humanely	Has firsthand or vicarious learning experiences with animals. Treats pets, domestic animals, and wildlife humanely and advocates such behavior in others.	Collects information on problems relating to pets, domestic animals, and wildlife. Advocates programs and practices leading to humane treatment and protection of endangered species.	Uses firsthand and vicarious experience to evaluate the effectiveness of community agencies which deal with animals such as local humane societies and wildlife protection groups.	Collects information on worldwide programs and activities related to animals. Participates with various organizations in programs to protect animals. Evaluates career and recreational choices in regard to those which foster humane treatment and personal enjoyment of animals.

GOAL 2.0: **ECOLOGY - RESOURCE MANAGEMENT — To develop an understanding of basic ecology and the use of technology in activities for the management of renewable and nonrenewable resources (e.g., planning for the use of land, producing and conserving energy, controlling pollution, protecting wildlife)**

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
2.1 To demonstrate an understanding of the principles of ecology and related sciences	Describes the basic needs of all living things and relates the fulfillment of these needs to natural resources. Identifies the common forms of pollution and describes their harmful effect on the environment.	Illustrates with specific examples the concept that everything in nature is connected to everything else.	Describes a food chain and the role of each component in it. Describes a water cycle and the effect of human activities on the waters of the world.	Understands the spaceship earth concept and relates worldwide conditions to the health of the planet.

ENVIRONMENTAL EDUCATION

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.2 To become aware of the positive and negative effects of various technologies on the environment and its resources	Describes the work and equipment used by the school custodian and other workers in the immediate neighborhood and evaluates the effect of their work on our comfort, safety, and health.	Lists the work of various resouce management agencies in the community and evaluates the effect of their technologies on environmental health and resource management.	Evaluates land use planning practices in the community and region. Explains the need and function of the various technological devices and practices used in the home and work environment such as auto smog controls and home energy saving devices.	Identifies career choices in environmental management. Describes the effect of technology on the world environment and evaluates constructive and harmful practices.

GOAL 3.0: **VALUES - SOCIAL MECHANISMS — To understand how values, ethics, and morality form the basis upon which environmental and resource use decisions are made and the role that social institutions play in providing the mechanisms through which these decisions are implemented**

MULTICULTURAL

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To understand how personal and social values, ethics, and morality in different cultural settings affect consumption of natural resources, treatment of the physical environment, and regard for all forms of life	Describes the resources involved and the environmental effects of fulfilling personal value choices such as walking vs. riding in a car.	Assesses the environmental effect of value choices in other cultures, past and present.	Identifies the factors which shape our personal and social values (e.g., TV, churches, government, advertising, examples of prominent people) and understands the environmental consequences of these values.	Identifies the factors which shape the personal and social values of subcultures within our own country and other countries and relates these factors to environmental health.
3.2 To understand the role of government and the need for laws to protect environmental quality and conserve resources	Participates in setting up and following simple school rules regarding pollution and resource waste (e.g., litter, energy, materials waste).	Lists and describes the work of various governmental agencies which deal with environmental matters and describes the roles of elected officials in setting policies.	Explains the roles of state and national government in environmental matters and describes the concepts of lobbying and trade-offs (e.g., the role of federal agencies, congress, the President, service clubs, trade associations).	Describes the complexities of international politics as they relate to worldwide environmental problems and gives rationale for the need to cooperate to avoid disastrous action such as wars.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
CONSUMER 3.3 To understand how individual and social economic choices affect the environment and its resources	Relates personal, family, and school purchases to natural resource and energy use and describes how purchases have an environmental cost (e.g., candy bar requires raw materials and energy to produce and transport and comes in materials which could become litter).	Describes the resources used, the energy involved, and the pollution generated as a result of the manufacture and distribution of commonly used products (e.g., fast foods, highway and off-road vehicles, products made from wild animals).	Describes and cites examples of how government and other groups (organized labor, conservation groups, trade associations, financial institutions) can affect the economic system and thereby affect the environment and its resources.	Analyzes the economic implications of world trade, balance of payments, gross national product, and other factors as they affect the environment and its resources.

GOAL 4.0: **PERSONAL LIFE-STYLE — To develop a personal life-style which supports the environmental rights of others and contributes to the maintenance of a healthy and productive physical environment**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To understand the effect of the physical environment and the availability of natural resources on human health, comfort, and well-being	Lists and describes the basic needs of all living things and describes how natural resources are used to supply these needs.	Describes the relationship between individual life-style choices, environmental health, and resource consumption.	Compares living conditions in other countries and at other times in history to contemporary American life in terms of effects on the environment.	Observes examples of individual and social behavior in a variety of national and worldwide situations. Describes the effect of these practices on the health, comfort, and well-being of people.
CAREER 4.2 To make life-style decisions which preserve environmental quality, conserve resources, and provide for the preservation and enhancement of such amenities as natural beauty, cultural and historical resources, and wildlife	Practices conservation in the use of all resources.	Participates in environmental and resource conservation activities such as recycling programs, litter cleanup, energy conservation, and civic beautification projects. Works with others to evaluate consumption and activity choices and to select those which support a healthy environment.	Demonstrates increasing sophistication in the use of materials, selection of recreational activities, transportation options, consumer decisions, and other factors which affect resource use and environmental quality.	Makes life-style decisions such as career choices, family planning, and transportation which safeguard the environmental rights of others.

ENVIRONMENTAL EDUCATION

GOAL 5.0: ENVIRONMENTAL PROBLEM SOLVING — To develop the ability to create viable solutions to environmental problems and to work independently or cooperatively to implement them

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.1 **Problem Identification** To become aware of simple to complex environmental or resource use problems	Assess the home-school environment and identifies simple problems such as litter, and waste of material, water, and energy.	Evaluates personal or social behavior in the community which adversely affects environmental health.	Demonstrates skill in working independently or cooperatively to conduct simple surveys, use monitoring equipment, and to seek information on environmental problems from appropriate agencies and individuals.	Collects and evaluates data on state, national, or international environmental problems and predicts the effect of these conditions on the ecosystem.
5.2 **Problem Solving** To demonstrate environmental problem-solving skills, working independently or with others	Uses simple tools and works with others to keep home and school environment healthy and to conserve resources.	Participates in school or community environmental problem-solving activities and exercises peer leadership to involve others.	Identifies the various social organizations and institutions which affect environmental decision-making and participates in their activities as appropriate.	Demonstrates skills in organizing peers or participating in solving a variety of environmental problems using skills and knowledge from a variety of areas.
5.3 **Evaluation** To evaluate the effectiveness of environmental improvement or resource conservation activities	Makes simple before-and-after comparisons of home and school cleanup or resource conservation activities.	Assesses and quantifies the effectiveness of school or community activities to control waste or protect environmental health.	Collects and evaluates data to determine the effectiveness of various public and private agencies in dealing with such problems as air pollution, noise, energy conservation, and material waste.	Understands the environmental concept that everything is connected to everything else and applies this concept to the evaluation of regional, national, or worldwide environmental protection and/or resource conservation activities.

PROFESSIONAL ASSOCIATIONS, PUBLICATIONS, AND SERVICES

Conservation Education Association
Richard J. Myshak, President
Department of the Interior
18th & C Streets, N.W.
Washington, D.C. 20240

Bibliography and other useful publications. Conducts a convention annually.

California Energy Education Forum
721 Capitol Mall
Sacramento, CA 95814

Various publications and services available. Conducts regular meetings for the exchange of materials and expertise.

California Natural Resources Federation
2775 Cottage Way, Suite 39
Sacramento, CA 95825

Various publications from the National Wildlife Federation are available through CNRF. Active in environmental legislation.

National Association for Environmental Education
P.O. Box 560931
Miami, FL 33156

Various publications, including a high school course of study. Conducts a convention annually.

FOREIGN LANGUAGE

POINT OF VIEW

The main purpose of foreign language in the curriculum is to provide students with opportunities to acquire communication skills beyond the limits of the native language community and culture. To the extent that language organizes our experience and makes rational thought possible, the acquisition of additional languages increases the capacity for experience and enhances our power to share the experiences of others. It is through experience that we live and grow.

The underlying purpose of education is to provide the learner with skills for gaining as well as for processing experience. Language is the primary channel through which education flows. Each new language is an additional channel increasing not only the potential flow, but also adding a new dimension for organizing and using the extended supply of experience.

The study of a foreign language makes explicit certain linguistic processes which might otherwise remain implicit in the learner's use of the first language. This explicitness can stimulate the learner's awareness of the native language and so increase the extent and depth of command of that language.

Beyond personal benefits, multilingual/multicultural Americans can make a valuable contribution to this country. An understanding of cultural diversity can help make them good citizens; they are better able to accept and appreciate the behavioral differences which they encounter in fellow Americans from other cultural backgrounds.

Foreign language study has at least two unique characteristics. It can enable learners to communicate in another language. It also can provide a key to entering and participating in other human cultures.

GOAL 1: **To communicate through the language being studied**

LEVEL 1

Half of the students are given cards with dialogs written on them. These phrases and responses have been introduced previously and drilled with the entire class. The students pair off, one with a card and one without, to practice the dialog. Student A, who has the card, reads the first phrase. Student B responds. If the response is appropriate, student A continues with the next line which would logically follow student B's reponse.

If student B's response is not appropriate, student A repeats the phrase and one of the acceptable responses. Student B listens to the repetition and repeats after student A. Student A repeats the phrase again, student B responds, and the exercise continues.

This can be an activity involving the entire class at the same time or an evaluation technique with only two students performing at a time.

LEVEL 2

The students see a set of visuals on a cultural aspect of the country whose language is being studied (e.g., vacations in Germany). Following the visuals, the students hear several recorded interviews with people from that country. The subject of the interviews is related to the visuals. For example, the visuals might include scenes of a German city; preferred vacation spots for Germans, both in Germany and in other countries; and then a series of scenes about jammed Autobahns, crowded trains, and busy airport terminals. In the interviews people would talk about such things as when they go on vacation, how they travel, where they go and why some places are popular for vacationing. The students see the visuals and hear the interviews as many times as the teacher deems necessary for student comprehension. Before hearing the interviews, the students receive a set of questions regarding the interviews. After they have listened to the interviews, they write the answers to the questions. In answering the questions, the students complete a short report on how and when Germans take their vacations, where they go and why, using the information given in the visuals. Afterwards the students make an oral report in German on the subject of Germans and their vacations.

LEVEL 3

The students see a set of visuals showing a group of young men and women sitting at a table in a restaurant in France. The students also hear recordings of the conversational flow among the young people. This conversational flow contains information supporting the scenes depicted in the visuals, indicating that the gathering is a celebration and containing clues as to its nature (e.g., birthday, passing the baccalaureate). The students see the visuals and hear the accompanying tapes as many times as the teacher deems necessary for comprehension. The students then prepare and deliver an oral report in French on the events preceding the gathering in the restaurant (e.g., the occasion, suggestions as to the nature and place for celebration, list of participants).

LEVEL 4

The students either read, see in visuals, or hear recordings of part of a story or play with a clear narrative line. They do this as many times as the teacher deems necessary for full comprehension. Afterwards the students prepare and deliver orally in the target language their versions of the rest of the story.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To communicate through the language being studied**

FOREIGN LANGUAGE

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To comprehend the spoken language	Executes oral commands.	Sees a scene or picture and distinguishes between accurate and inaccurate oral statements about the material seen.	Hears a short dialog, conversation, or narrative (10-15 sentences) and distinguishes between accurate and inaccurate statements.	Hears a conversation, short story, or skit (15-30 sentences) and distinguishes between accurate and inaccurate statements about the content or the material.
1.2 To speak the language comprehensibly	Responds appropriately to questions or comments on a designated topic so that meaningful conversational flow is maintained.	Describes orally the action or situation seen in a series of visuals.	Describes orally the possible actions, situations, or events which might logically precede or cause a given action, situation, or event.	Gives an original, oral impromptu ending for an unfinished story.
1.3 To comprehend the written language	Matches a written statement with an appropriate scene or picture.	Arranges written sentences in a meaningful sequence to form a coherent paragraph.	Reads a dialog, conversation, or narrative (15-30 sentences) and distinguishes between accurate and inaccurate written statements.	Distinguishes between valid and invalid summaries and resumes of visual or written material.
1.4 To write the language comprehensibly	Writes words and sentences upon dictation.	Writes brief original compositions on selected topics.	Describes in writing the events which might logically precede or cause the actions, situations, or events depicted in a visual or series of visuals.	Writes a description of characters and/or events in a play or story.

GOAL 2.0: **To function in the culture(s) in which the language is used**

MULTICULTURAL

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To understand the attitudes, values, customs, traditions, and taboos of the culture	Learns the important festivals and holidays of the culture and how they are celebrated.	Learns the important personal transitional events of the culture (e.g., birthdays, coming of age).	Demonstrates knowledge of attitudes in a cultural group toward honesty, work, male/female relationships, and aging in the culture.	Demonstrates an awareness that languages reflect the thought processes and social attitudes of the culture which produced them.

MULTICULTURAL

2.2 To use cultural signals in a variety of social contexts	Selects culturally appropriate clothing for a given situation.	Selects the appropriate greeting for a given situation.	Recognizes and understands how individuals from different cultural backgrounds use the concept of time (e.g., being late or early for appointments).	Demonstrates use of pitch levels in the language studied to signal simple statement commands, interrogation, surprise, indignation, and other meanings.
2.3 To recognize and use body language and other modes of nonverbal communication (e.g., conversational distance, demonstration of affection)	Matches a gesture with an appropriate verbal meaning.	Uses an appropriate gesture in place of verbalization.	Recognizes and uses the range of gestures and other nonverbal modes of communication appropriate to the language and culture.	Analyzes the role of body language and other modes of nonverbal communication in human cultures.

MULTICULTURAL

GOAL 3.0: To appreciate the similarities and diversities among languages, cultures, and value systems within the United States and throughout the world

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To recognize language patterns that are different from the native language	Cites two or three patterns of the language being studied.	Practices a basic inventory of contrastive language patterns.	Compares patterns in the language being studied with patterns in the native language.	Creates skits in the language being studied which contrast with skits in the native language.
3.2 To recognize behavioral patterns of cultures that are different from the native culture	Lists two or three behavioral patterns of the culture of the language being studied.	Dramatizes a basic inventory of contrastive behavioral patterns.	Distinguishes between behavioral patterns of the culture of the language being studied.	Creates situations or skits which contrast behavioral patterns of the two cultures.
3.3 To recognize common elements of humanity in diverse cultures	Lists elements of humanity common to all human beings.	Identifies common human elements in situations typical of the culture being studied.	Categorizes common human elements drawn from situations typical of the culture being studied.	Compares the common human elements in situations typical of the culture being studied and the native culture.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Council on the Teaching of Foreign Languages
62 Fifth Avenue
New York, N.Y. 10011

Publication: **Foreign Language Annals**

California Foreign Language Teachers Association (CFLTA)
Harold Wingard, Curriculum Specialist
San Diego City Unified School District
3100 Normal Street
San Diego, CA 92103

Publication: **CFLTA News**

Classical Association of the Pacific States
3480 Del Paseo Boulevard
North Sacramento, CA 95815

Foreign Language Review, Inc.
200 Park Avenue, South
New York, N.Y. 10003

Publication: **Foreign Language Review**

Modern Language Association of America
62 Fifth Avenue
New York, N.Y. 10011

Publication: **PMLA**

HEALTH EDUCATION*

POINT OF VIEW

The school health program promotes a philosophy of personal, mental-emotional, and social health based on educated decisions and responsible action. According to this philosophy, health is a way of living. Health develops throughout the individual's life and carries on to future generations. The role of the school is to provide programs and a climate which will enhance and promote the health of children, youth, and school personnel—thus improving the quality of life.

A health education program is developed around a group of three broad multidisciplinary goals. These goals focus on the interrelated development of general awareness, decision-making skills, and coping behavior in relation to maintaining physical well-being.

*The goals, objectives, and learner behaviors included in this section have been adapted from material in the *Health Instruction Framework*. The goals reflect the three multidisciplinary goals in the *Framework*. The objectives under each goal reflect the content area goals in the *Framework*.

VIGNETTES

GOAL 1: **To develop awareness of the importance of good health**

LEVEL 1

In the following activity students classify a variety of foods by sorting them according to likeness (e.g., vegetables) or difference (e.g., color). Students use magazines and newspapers to collect pictures of foods. Initially, the pictures are collected in a large box. Groups of students are assigned the task of sorting the pictures according to two or more categories. For example, one group sorts the pictures according to foods which they like or dislike. Another group sorts them according to the food groups. Others sort according to foods they have eaten or not eaten. After each group sorts the pictures, they list the food items in each of the categories. The lists are displayed on the bulletin board. Later the teacher assigns other groups to sort the pictures using the categories on the lists. Students compare the items in their categories with those on the lists.

The teacher uses the lists in discussions. The group analyzes whether or not the items belong in each of the categories and gives reasons for changes in classification.

LEVEL 2

The following questions are designed to help students explore their attitudes regarding foods that are particularly important for the carbohydrate content. The activity can be extended to deal with food habits and customs.

The teacher or a student reads the questions from a prepared list. After each question, the students express their feeling through a show of hands—up for affirmative, folded for undecided, and "thumbs down" for negative. The group response is recorded and the students express any additional comments or information that is relevant.

How many of you. . . (repeat each time):

- Prefer rye bread to white bread?
- Have tasted millet?
- Would like to eat right now?
- Think broccoli is okay?
- Would rather eat carrots than talk about them?
- Have tasted garbanzo beans?
- Would like to try kohlrabi?
- Can tell your mom what you want to eat?
- Eat tacos for breakfast?
- Think it is all right to leave food on your plate?
- Eat turnips raw?
- Want a banana in your lunch?
- Grow your own vegetables?
- Have roasted pumpkin seeds?

LEVEL 3

Students construct a panorama using pictures of food, people, and inanimate objects from magazines. Afterwards they write short skits using the collage as a source for inspiration. The teacher also suggests several topics such as:

- Write a conversation among three of the characters. Example—conversation among an elementary school child, a young adult, and a grandparent as to their food needs.
- Select a character and write a story for that person as to food needs.
- Write or role play a story in which the characters are two foods and one person.
- If any of the foods, people, or inanimate objects stepped into the world of 2050, what would they say?
- Make up a TV news item using the collage as your reporting source and topic.

LEVEL 4

Students pretend to be a fetus at a particular gestational age. They are to imagine themselves as a fetus and describe their activity, growth needs, and dietary needs. Students record these needs on a piece of paper. The teacher questions students at different fetal ages about developmental events and major nutritional needs. The information is recorded in the form of a time line on the wall of the room. Developmental events are matched with age and nutritional requirements for the full gestational period. For example:

Age	Developmental Event	Nutrient Needs
1-2 weeks	Fertilized egg divides into many cells.	Protein Folacin
1 month	Beginning of heartbeat. Organs including brain begin development.	Protein Folacin Calories

Students then review nutrient food exchange lists to plan a balanced diet for the fetus of the age that the student selected. They compare diet plans and revise them.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: To develop awareness of the importance of wellness

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
	Wellness			
1.1 To understand the relationship between personal behavior and wellness	Explains personal health habits that might contribute to different levels of wellness.	Relates how health is affected by daily health practices and prompt attention to symptoms of illness.	Relates life-styles to lifelong health status.	Recognizes that levels of health are constantly changing and are influenced by an individual's attitudes and actions.
	Family Composition			
1.2 To understand how the family setting—in many different forms—can provide a nurturing environment	Describes contributions and responsibilities of family members.	Cites the contributions of the family in promoting the health of its members.	Describes factors that influence the family's standards, values, and attitudes.	Interprets the impact of the life cycle on the changing roles of family members.
	Food Choices			
1.3 To develop an understanding of the relationship of eating patterns to physical, social, psychological, economic, and cultural factors	Classifies foods according to kinds, food groups, textures, sources, and traditions.	Demonstrates the ability to make food choices according to nutrient content.	Evaluates own daily food choices in terms of recommended nutritional needs and costs to optimal health.	Assesses dietary needs and possible alternatives to maintain individual and family health.
	Acceptance of Self and Others			
1.4 To develop an understanding of how emotional health is influenced by genetic, biological, social, cultural, environmental, and ecological factors	Discusses ways new pupils may be made to feel welcome.	Tells about ways that help individuals get along with others, including parents and teachers.	Proposes ways of becoming acquainted with persons of other ethnicities and national origins.	Suggests ways of promoting an understanding of oneself and others in multicultural relationships.

MULTICULTURAL

HEALTH EDUCATION

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.5 To develop awareness of the use of substances by individuals	**Uses of Substances** Differentiates between helpful and harmful substances in the home and school environment.	Describes the different effects of common substance on health and performance.	Explains factors that contribute to the use of substances and to long- and short-term effects.	Suggests measures of providing aid to persons who are reacting adversely to substances.
1.6 To develop an understanding of the causal factors of diseases and disorders and of the extent to which certain diseases and disorders can be prevented, treated, and controlled	**Causal Factors** Explains practices that are contributing causes of diseases and disorders.	Explains the role of microorganisms in the spread of communicable diseases.	Identifies and recognizes the symptoms of the diseases and disorders causing the highest morbidity and mortality rates among selected populations.	Delineates the role of genetic conditions in causing diseases and disorders.
CONSUMER 1.7 To develop an understanding that choices about health information, products, and services are affected by needs, feelings, values, cultural experiences, knowledge, and economic resources	**Responsibility for the Use of Health Resources** Demonstrates ways that show acceptance of responsibility for one's own health.	Describes value of having regular medical and dental checkups and follow-ups on immunizations.	Demonstrates use of appropriate sources of health information in selecting health services.	Discusses consumer rights in obtaining full and accurate information about one's health.
1.8 To develop an understanding that a safe environment and preparedness to deal with emergency situations contribute to wellness	**Accident Prevention** Demonstrates safety behavior when crossing streets, riding vehicles, using tools and playthings, participating in water sports, and handling animals.	Analyzes the role of attitudes in accident prevention and causation.	Identifies attitudes and behavior conducive to accident causation.	Interprets the relationship between psychological factors and the occurrence of accidents.
CAREER 1.9 To develop an understanding of the types of health resources needed to protect the health of people in all types of communities	**Community Health Resources** Identifies school health services personnel and their services.	Identifies procedures for locating community resources that provide medical and social services.	Analyzes the relationship of cultural and socioeconomic factors to the use of health resources.	Discusses people's roles in using the political system to fulfill unmet health needs.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
ENVIRONMENTAL 1.10 To develop an understanding that an environment in ecological balance enhances people's mental, social, and physical well-being	**Environmental Quality** Illustrates factors in the surroundings that promote health and safety.	Examines the relationship between the quality of the environment and the way a person feels.	Describes the interrelationship between human life-styles and the ecological balance of other life forms.	Describes ways of altering the environment to provide for human needs without adversely affecting its quality.

GOAL 2.0: **To develop the understandings and skills necessary for decision making in relation to the maintenance of health**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To obtain and use appropriate information and services for promoting personal health	**Oral Health** Recognizes the importance of regular dental evaluations and care.	Identifies the structures of the teeth, the surrounding tissues, and the specialized functions of the teeth.	Appraises reliable sources of information concerning the selection of qualified professional personnel for prevention and care of dental problems.	Selects qualified professional personnel for comprehensive dental care.
2.2 To make decisions regarding life-styles that promote healthful family living	**Interpersonal Relations** Demonstrates ways in which each family member depends on other family members.	Explains the impact of family harmony on the health of family members.	Compares the characteristics that are desirable in a dating situation with those that are desirable in a marital situation.	Specifies factors which foster satisfying adult relationships.
2.3 To consider various ways to meet nutritional needs	**Factors Influencing Choices** Compares similar and different foods from ethnic groups.	Describes the effects of food on a person's performance and behavior.	Examines factors influencing personal and family food choices.	Analyzes the interrelationships of factors influencing personal food choices.
2.4 To make decisions which build self-acceptance and reduce individual stress and anxiety	**Emotions** Describes ways to deal with upset feelings.	Identifies how situations may change emotions.	Illustrates ways that stress can affect body functions.	Assesses adjustment mechanisms in achieving mental maturity and in satisfying emotional needs.

HEALTH EDUCATION

OBJECTIVES		Level 1	Level 2	Level 3	Level 4
CONSUMER	2.5 To develop decision-making and valuing skills about the use and misuse of substances	**Decision Making** Distinguishes ways the media influence decisions.	Describes how values influence personal decisions to use or not to use specific substances.	Discusses ways of acting consistently with a positive value system while under pressure of peers to use or not to use substances.	Analyzes how individual needs and values interact with the social environment to determine the individual's use of substances.
	2.6 To make decisions for obtaining early diagnosis and treatment of suspected diseases and disorders	**Prevention and Control** Illustrates personal actions to maintain health and to prevent diseases.	Selects and applies scientific information to prevent and control diseases.	Lists the symptoms of common diseases among youth, including sexually transmitted diseases, and the importance of early diagnosis and treatment.	Accepts the value of local, national, and international efforts to prevent and control diseases.
	2.7 To use evaluative criteria when selecting health information, products, and services	**Criteria** Distinguishes among health products that may be beneficial, worthless, or detrimental to a person's health.	Discusses health products that are commonly misrepresented through advertising.	Develops factors to consider when evaluating, selecting, and using health products, services, and information.	Determines the qualifications and skills needed for various health professions and vocations.
	2.8 To evaluate and decide on alternative procedures for emergency situations, considering factors of time and consequence	**Emergency Health Care** Tells what to do for simple injuries.	Demonstrates the steps in providing basic first aid in life-threatening situations.	Demonstrates proficiency in applying standard first aid procedures in life-threatening situations.	Demonstrates appropriate advanced first aid procedures for major emergencies and life-threatening situations requiring mouth-to-mouth resuscitation and cardiopulmonary resuscitation.
CAREER	2.9 To make decisions that will contribute to the development of community health resources based on human needs and desired outcomes	**Shared Responsibility** Illustrates ways to work with others in promoting family and community health.	Explains how local, state, and national laws and regulations affect the health of the community.	Describes health agencies including voluntary health organizations, health maintenance organizations, and health system agencies that involve citizens in decision-making processes.	Compares and contrasts ways in which communities can organize to prevent and solve health problems on local, state, national, and international levels.

151

152

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
ENVIRONMENTAL 2.10 To make decisions which will help reduce all types of pollution and other environmental hazards	**Environmental Protection** Describes what people can do to promote a healthful and safe environment.	Relates what family members can do to maintain and protect the environment where they live, work, and play.	Reports on the efforts of community groups and agencies to protect and improve the environment.	Evaluates the programs of official agencies that have jurisdiction over the environment and of voluntary agencies dedicated to environmental improvement.

GOAL 3.0: To develop coping skills for the maintenance of good health

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To develop personal practices which contribute to wellness	**Physical Fitness and Cardiovascular Health** Participates in a well-rounded program of activities that promote strength, agility, coordination, and physical development.	Describes contributions of physical activities to the improvement of muscle tone and cardiovascular fitness.	Identifies ways in which physical fitness contributes to physical, mental, and social health.	Formulates a balanced program for physical fitness that reflects the need for regular exercise throughout adult life.
3.2 To engage in and promote satisfying human relationships through which individuals can be nurtured and grow	**Parenting** Describes how families in other cultures care for their young.	Discusses socioeconomic implications of family size.	Analyzes successful child-rearing practices.	Presents examples of shared responsibilities of parenthood and family planning.
3.3 To develop eating patterns which contribute to wellness	**Consumer Competencies** Selects a food and states the reasons for making the choice.	Evaluates the usefulness of words and pictures on food packages.	Evaluates the impact of advertising on food choices.	Describes resources that may be used in developing alternatives for satisfying dietary needs and budgetary constraints.
3.4 To develop patterns of behavior which promote sound mental-emotional health	**Coping with Stress and Anxiety** Describes alternative behaviors in situations where something frustrating happens.	Analyzes positive and negative aspects of stress.	Suggests acceptable ways of helping oneself and others to manage feelings of stress and anxiety.	Relates physiological aspects of stress and anxiety to various body systems and to the onset of certain diseases.

HEALTH EDUCATION

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
	Responsibility for Prevention			
3.5 To demonstrate responsible behavior in using various chemical substances	Explains the customs and rules of the family, the school, and the community regarding the use of substances.	Describes roles of individuals in the prevention of the misuse of substances.	Evaluates programs designed to prevent substance misuse and to assist persons with related problems.	Describes the relationship among society's values, the use of certain substances, and efforts to prevent misuse.
	Prevention and Control			
3.6 To demonstrate responsible behavior in the prevention and control of diseases	Discusses health practices which will hasten recovery from infectious diseases.	Identifies scientific contributions that have been made to help protect people from diseases and disorders.	Supports and encourages individual and community efforts to prevent and control diseases, including sexually transmitted diseases.	Analyzes life-styles and personal health practices designed to reduce risk factors in the occurrence of major diseases and disabilities.
	Social Factors and Health Care			
CONSUMER 3.7 To exhibit selective practices in choosing and using health information, products, and services	Recognizes different types of health facilities and services used by families.	Surveys families, friends, and teachers about where they obtain their health care and why.	Reports on health practices of different cultures.	Reports on the relationship of values, socioeconomic status, and cultural experiences to the selection of health services and products.
	Accident Prevention			
3.8 To exhibit skills in accident prevention and injury control and to show appropriate responses for emergency situations	Demonstrates appropriate behavior during emergency drills.	Lists accidents most likely to occur to children and explains ways in which they may be prevented.	Explains reasons for keeping safety equipment in readiness for emergencies.	Identifies factors which are involved in making a home safe for infants and children.
	Health Planning			
CAREER 3.9 To assume responsibility for improving the health of the community	Discusses ways families cooperate with school personnel in promoting the health of family members.	Describes laws and regulations enforced by cities, counties, states, and countries to prevent and control health problems.	Shows how interagency health planning results in cooperative efforts to meet individual, family, and community health needs.	Develops plans for participating in community health planning.
	Environmental Protection			
ENVIRONMENTAL 3.10 To participate in activities designed to promote and foster a positive human environment	Reports on different kinds of pollution.	Evaluates the effects of vandalism on the school-community environment.	Analyzes ways in which individual citizens and communities can participate in activities to promote a healthful and safe environment.	Examines the interrelationship of factors that are involved in maintaining and improving environmental standards.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Public Health Association
1015 - 18th Street, N.W.
Washington, D.C. 20036

Publication: **American Journal of Public Health**

American School Health Association
P.O. Box 708
Kent, Ohio 44240

Publication: **Journal of School Health**

Association for the Advancement of Health Education
1201 - 16th Street, N.W.
Washington, D.C. 20036

Publication: **Health Education**

California Association for Health, Physical Education and Recreation
401 S. Hartz Avenue, Suite 306
Danville, CA 94526

Publication: **CAHPER Journal**

California School Health Association
1353 Lausen Drive
Millbrae, CA 94030

Publication: **CSHA Journal**

California School Nurses Association
Mary Avery, President
P.O. Box 214003
Sacramento, CA 95821

Publication: **The Newsletter**

National Association of School Nurses
1201 - 16th Street, N.E.
Washington, D.C. 20036

Publication: **The School Nurse**

HOME ECONOMICS

POINT OF VIEW

Home economics education is a multidisciplinary program which includes the areas of management of finances, resources, and services; child development and family relations; housing and home furnishings; foods and nutrition; and clothing and textiles. New curriculum development has emphasized consumer education, interpersonal relationships and human development, sexual equality, parenthood education, nutrition education, and preparation for changing roles.

The home economics education program is concerned with helping young people develop skills, attitudes, and knowledge to cope with the responsibilities they will be expected to accept both as family members now and in the multiple roles of homemaker, wage earner, and participating member of a community in the future.

Home economics programs are formally offered at the grade levels which correspond to levels 3 and 4 in the Course of Study. Vignettes are included for those levels. However, students can be introduced informally to many of the concepts in a home economics program at levels 1 and 2. Samples of learner behaviors have been included for those levels to demonstrate how the goals and objectives can be used in developing many different types of activities.

LEVEL 4

In this activity the teacher gives examples of the common practice in our country of seeking advice from experts (e.g., lawyer, doctor, counselor) when an important problem arises. The teacher describes a community in which the leaders have decided to provide expert help to everyone for making decisions. At great expense of time and public funds the community leaders have trained a decision agent. In order to make the agent's services available to a majority of the local citizens, each person can ask for help with only three decisions in a lifetime. Students are asked to write down the three decisions each of them would ask the decision agent to make.

Afterwards, the teacher explains that the service has become very popular and successful. As a result the community leaders have trained more agents and now require that all decisions be made by them. Community members now can make only three decisions in a lifetime. The teacher asks the students to write down the three decisions they will make themselves.

At the conclusion of the activity the teacher leads a discussion asking the students how they felt when doing the activity, what problems arose in making choices about decisions given to the agent, and whether or not a decision agent would be desirable.

GOAL 4: **RESOURCE MANAGEMENT — To develop skills for creative management of resources to achieve desired life goals**

LEVEL 3

The teacher asks students to list all the decisions they have made since they awakened that morning. When the lists are completed, the teacher asks the students to read their lists. The group discusses whether all possible decisions have been listed. It may be necessary to explain that even getting out of bed in the morning can be interpreted as a decision. Also, letting someone else make a decision for you can be counted as a decision made by you. At the conclusion of the activity the students discuss the steps necessary to making an important decision. Finally, they develop a list of steps that are included in a decision-making process.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **PARENTHOOD EDUCATION/FAMILY RELATIONS — To develop students' abilities to help children realize their potential**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To develop the ability to plan for parenthood by assessing personal, emotional, physical, and economic readiness to assume the responsibility	Talks with mothers about caring for babies.	Discusses special responsibilities of baby-sitting with siblings.	Describes the experiences and problems encountered in baby-sitting.	Describes tasks and responsibilities involved in caring for a young child for one week.

HOME ECONOMICS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.2 To develop understanding of physical, emotional, social, and intellectual developmental tasks	Discusses growth and expectations with peers.	Works as teacher in kindergarten.	Describes the needs and behaviors of preschool children.	Uses Piaget's concept of conservation of matter with preschool children to assess developmental levels.
1.3 To be aware of changes in stereotypes regarding acceptable sex roles that broaden life-style options for both men and women	Participates in non-sex-segregated activities.	Reads non-sex-stereotyped materials.	Evaluates sex stereotyping associated with various toys.	Determines subcultural differences in sex-role expectations.
1.4 To become aware of changing marriage and family patterns and expectations	Talks about being a family member.	Develops and acts on plans to contribute to family activities.	Describes situations in which family members provide support to each other.	Describes alternatives for family ties in adulthood.
1.5 To analyze ways of dealing with parenthood		Deals with stress through change in own activities.	Describes the personal stress involved in child care.	Describes the support system for battered and neglected children in the community.
1.6 To develop awareness of methods that can be used in developing a positive self-concept in children		Describes an environment that encourages positive self-concept.	Describes teaching strategies that foster a positive self-concept in children.	Works in a nursery school situation using strategies for enhancing children's self-concept.

GOAL 2.0: **INTERPERSONAL RELATIONS — To develop the ability to be effective in personal relationships, to cope with stress, and to clarify personal values in relation to experiences within a family setting**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To develop skills for effective communication	Communicates feelings in specific situations.	Listens and responds when others speak.	Analyzes ways of communicating with family members.	Suggests ways of improving communication among different generations.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.2 To demonstrate understanding of stress and ways to cope with it	Participates in rest periods.	Participates in tension reducing exercises.	Describes stress situations and anticipates ways to cope during these situations.	Describes ways of offering support to others during periods of stress.
2.3 To develop a positive self-concept	Describes own perception of situations in which there is conflict with others.	Discusses own strengths and weaknesses in relation to specific tasks.	Participates effectively in a variety of roles in activities with peers.	Identifies personal values that contribute to a sense of personal identity and worth.
2.4 To clarify values and how they affect interactions with others	Talks about values (e.g., tell the truth, be honest).	Demonstrates values in role playing situations.	Analyzes the development of own values and sets goals.	Describes how needs and values change throughout the life cycle.
2.5 To become aware of the unique problems of aging	Discusses relationships with older persons.	Participates in class project to help older people in the community.	Describes responsibilities that can be anticipated at different stages in the life cycle.	Describes physiological changes in the aging process.
2.6 To develop a sense of social responsibility and respect for the diversity among people	Assumes responsibility for own actions.	Talks about own beliefs.	Discusses differences in values expressed by peers.	Analyzes how cultures differ in the ways in which they meet human needs.

MULTI-CULTURAL

GOAL 3.0: NUTRITION AND FOODS — To design a variety of nutritious diets and plan and prepare meals

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To apply the Basic Four criteria in planning a variety of diets	Tries new foods.	Lists Basic Four groups.	Lists the Basic Four and recommends number of servings for food groups.	Evaluates own diet for a week using Basic Four criteria.
3.2 To become aware of special diet requirements for specific purposes such as weight reduction, pregnancy, lactation, and old age	Chooses fruit over candy for snack.	Identifies foods high in sugar content.	Lists categories of food to avoid for safe weight loss.	Plans a diet for weight reduction over a two-week period.

HOME ECONOMICS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.3 To demonstrate knowledge of an individual's need for protein, carbohydrates, fats, vitamins, minerals, and water in maintaining physical health	Chooses milk over soft drinks.	Lists reasons for including protein foods in food choices.	Identifies the foods eaten during the day that contain protein.	Explains the differences between complete and incomplete protein and chooses foods that provide all amino acids.
3.4 To develop skills in planning, purchasing, and preparing food	Prepares a nutritious snack.	Prepares a quick bread.	Plans and prepares a simple breakfast.	Plans and prepares a three-course dinner.

GOAL 4.0: **RESOURCE MANAGEMENT — To develop skills for creative management of resources to achieve desired life goals**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
ENVIRONMENTAL 4.1 To understand the role of responsible decision making in the use of resources, including consideration of costs to society, environmental effects, and personal and family values and goals	Eliminates waste in using materials in class.	Practices recycling of materials used in the classroom.	Describes the effects of own consumer choices and practices on the community and the environment (e.g., water consumption).	Analyzes ways in which decisions about the use of present resources can open up opportunities to achieve a satisfying life-style.
4.2 To analyze the factors that contribute to effective decision making	Identifies opportunities in school to make decisions such as in the choice of materials for an art project or planning for independent activities.	Makes decisions about ways to meet class requirements.	Lists all the decisions made in the last 24 hours and the factors that contributed to them.	Lists decisions that affect self but are made by others.

GOAL 5.0: CONSUMER EDUCATION — To be aware of consumer rights and to make decisions in the marketplace which increase satisfaction and economic efficiency

CONSUMER

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS			
	Level 1	Level 2	Level 3	Level 4
5.1 To become aware of alternative uses of personal resources other than money to achieve goals	Performs household tasks for other family members.	Performs tasks for a neighbor.	Identifies personal resources that can be used to achieve a goal.	Exchanges special talents with a friend so that both benefit.
5.2 To develop a method of financial record-keeping to meet personal needs	Tells how allowance is spent.	Keeps record of spending.	Relates the use of a spending plan to accomplishment of goals.	Develops a budget plan for personal spending.
5.3 To develop personal savings practices in relation to values, goals, and resources		Makes arrangements to save through parents' help.	Makes a plan for regular savings through a bank.	Compares advantages and disadvantages of saving to buy something with using credit for purchases.
5.4 To become aware of the personal risks for which insurance is needed and the types of insurance programs available			Identifies various kinds of insurance available.	Describes advantages and disadvantages of different insurance plans.
5.5 To relate cost and effective use of credit to the ability to accomplish future goals			Identifies sources of credit available to teenagers.	Identifies rights of individuals under the Fair Credit Reporting Act.
5.6 To assess the accuracy and reliability of various sources of consumer information	Describes personal feelings about advertising on television.	List ways in which the various media influence consumers.	Evaluates consumer advertising in media such as newspapers, magazines, radio, and television.	Analyzes ways in which misleading advertising, inadequate labeling, and deceptive packaging restrict the consumer's right to full and accurate information.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
CONSUMER 5.7 To become aware of consumer rights and of procedures for assuring legal protection			Identifies the appropriate procedures for reporting grievances to the business community.	Uses available avenues of consumer recourse by following through on a grievance.

GOAL 6.0: CLOTHING AND TEXTILES — To consider aesthetic and practical factors in choice, construction, repair, and care of clothing

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
6.1 To develop skills in clothing construction and sewing machine operation	Makes project that uses stitchery.	Sews on a button.	Operates a sewing machine (e.g., makes a simple garment).	Cleans, oils, and makes simple repairs on a sewing machine.
6.2 To demonstrate knowledge of good personal grooming and complementary wardrobe selection	Helps to choose clothing from a selection made by parent.	Chooses colors of clothing.	Evaluates why selected colors are attractive on oneself.	Plans a wardrobe with color coordination.
6.3 To demonstrate adequate skill in repair and maintenance of clothing	Keeps clothing clean by wearing protective coverings such as aprons.	Sorts and folds laundry.	Explains care required for polyesters, cotton, and wool garments.	Removes common stains from a garment made of identified fiber.

GOAL 7.0: HOUSING AND COMMUNITY — To be able to make housing decisions based on personal values, needs, and the responsibility of community membership

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
7.1 To recognize how values affect housing decisions and use of financial resources	Talks about why people live in houses and how various cultures have different houses.	Writes about how own home meets personal needs.	Assesses personal preferences in housing.	Analyzes the ways in which personal values affect housing decisions.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
7.2 To recognize the need and the responsibility that residents have for resources and services a community provides	Provides services to other members of community.	Participates in activities of groups outside of school (e.g., scouts, church, recreation programs).	Describes community services, what they are, who is eligible, and why they are offered.	Explores situations where community services are enhanced through volunteer service.
7.3 To develop an appreciation for aesthetic qualities that enhance the living environment	Picks up and stores personal belongings.	Helps clean bedroom.		Plans the color scheme for a room.
7.4 To understand the ecological impact of housing choices	Vists parks and developments that effectively utilize land.	Participates in ecology projects.	Compares land use for single family homes and condominiums.	Plans and builds model of a community based on ecological principles.

ENVIRONMENTAL

GOAL 8.0: **HOME ECONOMICS-RELATED OCCUPATIONS — To develop knowledge and skills necessary for entry-level employment or admission to advanced training in one or more of the following home economics-related occupational areas: care and guidance of children, clothing management, production and services, food management, home furnishings, equipment and services, institutional and home management, and supporting services**

CAREER

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
8.1 To demonstrate basic entry-level employment skills	Uses tools (e.g., hammer, saw) to make something.	Uses tools in a manner which is safe, personally and to others.	Lists rules for safe operation of tools used in classroom.	Demonstrates the operation of power equipment and explains safety precautions.
8.2 To demonstrate minimum competencies that are unique to specific occupational areas (e.g., food services)	Interviews parents about occupational responsibilities.	Studies various work roles and responsibilities.	Analyzes skills and responsibilities required in self-selected work roles.	Performs effectively in work experience position (e.g., prepares large quantity of sandwiches with efficient use of time and motion and no waste of ingredients).

INDUSTRIAL ARTS

POINT OF VIEW

The major purpose of industrial arts education is to provide opportunities for students to develop an understanding of the technical, occupational, organizational, managerial, consumer, recreational, social, historical, and cultural aspects of industry and technology.

Industrial and technical knowledge and competencies are developed through activities that emphasize experimenting, planning, designing, constructing, and evaluating. Students use tools, machines, and materials in these activities.

An industrial arts education program is organized to assist individuals to make informed and meaningful occupational career choices. Programs are designed to provide a continuum of experiences and activities that further the development of each student's career potential, technical awareness, judgment, self-reliance, and resourcefulness in order to become an effective individual in our industrial-technical society.

VIGNETTES

GOAL 2: **To develop skills and knowledge needed for entry-level jobs, advanced training, and avocational activities**

LEVEL 1

The students receive instruction, demonstrations, and materials for assembling a model airplane. After class discussion of the many careers involved in the aircraft industry, the students become builders by assembling their airplanes. They use simple hand tools in the construction of the plane and show concern for the safety of self and others by using the tools in a specified area of the classroom and keeping the area free of clutter. When the task is finished, each student shares the experience and the product with the rest of the class.

LEVEL 2

Pairs of students design a "Rube Goldberg" type machine to rid the area of smog. They write instructions for construction and list all materials and tools needed for construction as well as advantages and disadvantages of the invention. The groups assemble materials and tools, follow step-by-step instructions to create their machines, test the working parts, and apply finishing touches. When the task is finished, each pair of students demonstrates and explains their invention to the class.

LEVEL 3

A group of students plan the construction of a ticket booth, design the booth, make scale drawings with construction notes and accurate dimensions, list materials and equipment, and order and receive materials; attention is given to checking invoices, deciding the site, and studying the environmental impact. The group develops a work plan and constructs the booth using hand and power tools to cut materials, mix concrete, and apply adhesives. After construction, the group decorates the booth and opens it for business.

LEVEL 4

A group of students form a company for the repair of automobiles. They elect a foreman and an accountant. The group develops a system to account for all expenditures and to record the time worked by company members. They may or may not sell stocks to purchase supplies and parts. They advertise the services available and the prices for typical services. They solicit work and analyze the services needed using an oscilloscope, infrared exhaust analyzers, alignment, and measuring devices. They order and receive the necessary parts. They install the parts making necessary calibrations to ensure proper operation of the vehicle. At all times they follow prescribed safety procedures. The accountant computes the charges for parts and labor, collects the money, and credits the amounts to the proper accounts.

At the end of the year the accountant reports on profits and losses. The company members decide how to share the profits or make up the losses.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To develop basic educational skills of communication, computation, and decision making necessary in solving problems of an industrial nature**

INDUSTRIAL ARTS

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS			
	Level 1	Level 2	Level 3	Level 4
1.1 To read and interpret charts, specifications, and drawings necessary for the completion of a product or task		Examines simple drawings and selects the correct one to complete a project.	Reads drawings in the early stages of production to determine size, shape, material requirements, and processes necessary for completion of a product.	Reads informative literature such as auto tune-up specifications which indicate the number of degrees from top, dead center for timing the point gap in thousands and the plug gap in thousands and applies this information in tuning up a car.
1.2 To read, compute, and analyze information obtained from instruments or machines and apply the information			Uses simple dials, pressure regulators, meters, and thermometers to obtain information necessary for the production or repair of an item.	Reads, computes, and analyzes readings from a variety of instruments and synthesizes the information to make adjustments in the completion of a project.
1.3 To develop skills for planning and completing tasks		Follows an organized process for solving problems which require the use of hand tools.	Uses basic technical information to evaluate results and plan for corrections.	Uses technical knowledge and procedures necessary to obtain solutions to real problems such as a car that will not start.
1.4 To express technical ideas in writing instructions, making charts, laying out pictorial representations, and building scale models	Draws a picture resembling the item to be described.	Draws a sketch which communicates shape and size of simple objects.	Scales ideas in pictorial and three-view drawings which show dimensions necessary for construction of a product.	Develops a complete set of data including pictorials, schematics, industrial samples, and production notes necessary for production of an item.
1.5 To compute material costs		Computes the total direct cost when given cost of components.	Determines direct cost of personally constructed items by use of formulas, weight scales, charts, price sheets, and catalog.	Computes cost of mass produced objects and shows some understanding of analyzing indirect cost of production.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.6 To select measuring devices and use accurately in completing an industrial-related task	Determines the longest, largest, shortest, and smallest objects by comparison of physical shape.	Makes linear measurements.	Selects correct simple measuring devices such as calipers, dividers, scales, and squares to determine diameter, center, length, width, and thickness.	Selects and applies the correct instrument from a variety of measuring devices such as dial indicating meters, scope, and micrometers.

2.0: To develop skills and knowledge needed for entry-level jobs, advanced training, and avocational activities

SAMPLES OF LEARNER BEHAVIORS

CAREER

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To identify basic hand tools and equipment using proper nomenclature	Recognizes common tools of a household nature (e.g., pliers, screwdriver, saw, hammer).	States the proper names of hand tools used in industrial arts class.	Names the power tools and equipment common to the shop area.	Identifies all tools and equipment in a particular shop and points out the major components of each.
2.2 To use hand tools and equipment in a proficient and skillful manner	Uses hand tools to assemble simple object.	Plans a simple construction project and uses appropriate tools for the problem.	Uses an industrial process, materials, hand tools, and selected power equipment in the manner demonstrated by the teacher.	Solves industrial type problems using all necessary equipment in a safe, skillful, and efficient manner.
2.3 To plan, design, and construct a useful product		Makes a sketch with dimensions of a simple project and completes the project.	Draws plans and selects and bills out materials for a project.	Uses design principles of form and function to make a drawing. Gives the step-by-step procedure for producing the product. Selects appropriate materials and figures cost. Uses appropriate tools, equipment, and procedure to construct and assemble project.

INDUSTRIAL ARTS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.4 To identify and select the appropriate material for a particular application	With the teacher's help, selects an appropriate material to complete the assigned task.	Makes an accessory for own bedroom.	Selects the basic material necessary for the completion of a task.	Considers the form, function, and purpose of a product or task and selects correct basic material (fasteners, adhesive, coating, lubricants, parts) to complete the product.
2.5 To develop a positive attitude toward safety as it relates to self and others	Identifies areas of the workroom which are significant in terms of safety (e.g., location of fire extinguishers, exit procedures, earthquake procedures).	Participates in proper storage of materials and tools and demonstrates safe usage of hand tools.	Demonstrates safe usage of power tools toward self and others. Demonstrates use of safety devices (e.g., safety goggles, machine guards, exhaust ventilation systems, electrical disconnects).	Participates in the maintenance of a safety program and explains its importance to the welfare and health of self and others.
2.6 To understand the relationship of industrial education to leisure time activities	Names two things families do for leisure.	Lists at least two skills and two informational ideas learned in industrial arts classes that can be used in hobbies or recreational activities.	Constructs products that are useful in everyday living in industrial arts classes.	Uses information and skills learned in industrial arts to read, comprehend, and communicate in daily life.

GOAL 3.0: **To develop knowledge about careers related to industry**

SAMPLES OF LEARNER BEHAVIORS

CAREER

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To gather career information about occupations in the industrial sector	Describes what jobs are held by family members.	Listens to guest speakers' presentations on careers. Participates in field trips to industrial sites.	Explores several occupations by actually performing some elementary industrial task.	Selects a career cluster and begins developing knowledge and skills of that cluster by taking related classes.
3.2 To identify a career within the industrial sector that has personal interest	Describes jobs held by family members.	Lists several occupations which have personal appeal.	Lists manufacturers in the geographic area which offer employment in field of interest.	Names and discusses requirements of jobs that fit within personal profile, based upon test scores from interest and skills inventory.

GOAL 4.0: To develop an awareness of the economic structure of our industrial society

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
CONSUMER 4.1 To develop an awareness of the basic political and economic units of our industrial society	Describes a variety of occupations within the community.	Describes how consumer needs and industrial production are interrelated through supply and demand.	Analyzes how small and large industrial operations are financed.	Explains rationale and gives examples of private, public, and governmental ownership of industry and business.
ENVIRONMENTAL 4.2 To develop awareness of the relationship between environment and industry.	Observes school and community workers and describes practices which contribute to human health and which do not. Describes the natural resources consumed by community workers.	Develops good habits and practices in relation to resource conservation and pollution control in industrial arts programs.	Makes value judgments about particular practices of industry as they relate to pollution control, resource conservation, and economic welfare.	Discusses the relationship of production, raw materials, minerals, and industrial waste to the quality of life.

GOAL 5.0: To develop an understanding of the nature and function of industrial processes

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.1 To develop an understanding of the material processes of industry	Lists products of industry.	Describes steps by which industries take raw materials and process them to produce a product.	Describes the industrial process used in constructing or manufacturing a school project.	Describes in detail the major processes used by industry: mixing, combining, classifying, separating, removing material, forming, coating, assembling.
5.2 To develop an understanding of the products of industry	Names two products made by industry and describes the materials used in manufacture.	Takes basic raw materials and produces a useful product.	Uses a variety of materials and processes to manufacture a useful product.	Uses a variety of materials, processes, and people in the manufacture of a product.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Industrial Arts Association (AIAA)
1201 Sixteenth Street, N.W.
Washington, D.C. 20036

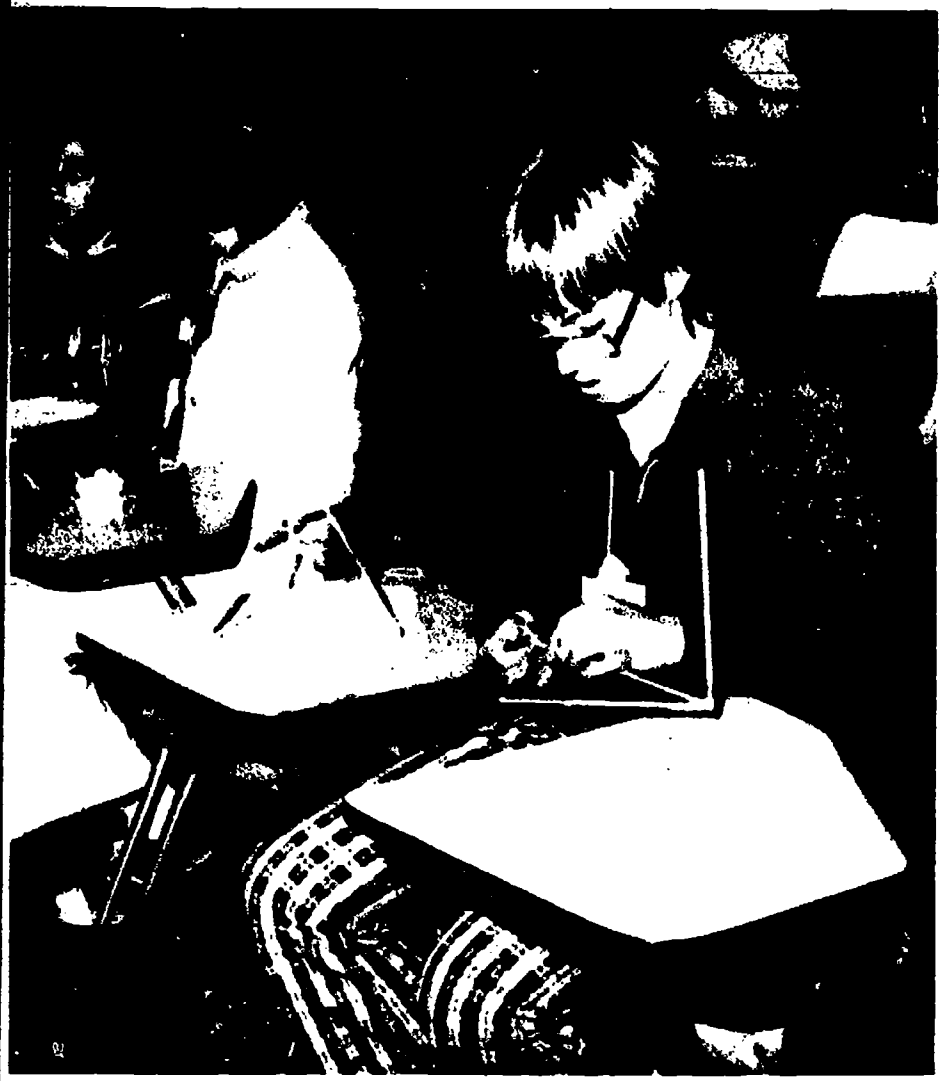
American Vocational Association (AVA)
2020 North Fourteenth Street
Arlington, CA 22201
Publication: **AVA Journal**

California Association of Vocational Education (CAVE)
P.O. Box 4387
Mountain View, CA 94040

California Council of Industrial Teacher Educators (CCITE)
William Brown
California State University
Chico, CA 95926

California Industrial Education Association (CIEA)
5110 E. Clinton Way #205
Fresno, CA 93727
Publications: **CIEA News**
CIEA Journal

MATHEMATICS



POINT OF VIEW

The major purpose of a mathematics program is to develop students' abilities to apply mathematics in solving problems in everyday living. This requires understanding of the various ways in which mathematical information can be organized, analyzed, and used in problem solving. This understanding is developed through students having practical experience in a variety of situations in which mathematical problem solving is required.

Because of the practical orientation of mathematics education, it is important that students have experience both with a variety of situations and with concrete materials in the use of mathematics. Emphasis is placed on manipulation of concrete materials to define the information that is available, to analyze the parameters of a problem, and to organize the information for problem solving. Students' understanding of mathematics in relation to concrete materials is the foundation on which more abstract concepts can be developed.

Mathematics is an integral part of other curriculum areas such as music, art, science, and the social sciences. Through these curriculum areas and others, students learn about the range and variety of situations in which mathematics can be used for problem solving. Consideration should be given to developing a coordinated approach to the use of mathematical knowledge throughout the curriculum.

Computational skills are developed in conjunction with problem-solving skills. Continual practice in the application of these skills in a variety of problem-solving situations helps students understand the importance of this fundamental knowledge.

GOAL 1: **To perform accurate and efficient computations using mathematics facts, operations, and number concepts which are necessary for functioning in our society**

LEVEL 1

A third grade class is studying about metric units in relation to consumer goods. The project begins with students bringing in empty cartons, bottles, and jars with labels that designate quantity in metric units. The students develop a chart listing various metric units, the symbols found on the labels, what they measure (e.g., weight, volume, liquid capacity), and the customary measuring units which the metric units replace.

Students use scales and calibrated containers to check the accuracy of the labels. They calculate the difference between the customary unit and the metric unit which replaces it (e.g., milliliters replaces teaspoon, tablespoon, cup fluid ounce, and pint). The students also perform calculations to discover the decimal relationship among metric units (e.g., 1000 milliliters = 1 liter; 100 centimeters = 1 meter; 1000 grams = 1 kilogram).

LEVEL 2

A sixth grade class is developing a similar project with consumer goods brought in by the students. They are comparing the unit prices of similar products in order to determine which is the best buy. The students decide to concentrate on certain products, collecting labels from different brands and different sizes of each product. Computations are performed by the students to determine the various costs per unit (using metric units when given) for each product in order to compare brands and sizes. A separate chart is developed for each product.

Example of chart: Corn Flakes

Brand X:	Smaller size, cost/unit	Larger size, cost/unit
Brand Y:	Smaller size, cost/unit	Larger size, cost/unit

LEVEL 3

An eighth grade class has a surplus of quarter-inch graph paper which has been replaced by centimeter graph paper. The students decide to make a list of the ways in which the surplus graph paper can be used. Afterwards, several groups of two or three students are given a few sheets in order to try some of the ideas. Following are some items from the list of ideas which students might develop:

- For determining the number of squares on a sheet. Identify units of different sizes which can be used to generalize about the number of squares in any region of the paper.
- For charts, data collecting, graphing activities
- For determining area of odd shapes (e.g., your footprint)
- For determining the relationships among different shapes made from combinations of squares (e.g., pentominoes)
- For artwork: mosaics, designs, scale drawings

LEVEL 4

An eleventh grade math class has an optional independent study project for interested students. The project is to research available calculators, programmable calculators, and minicomputers. Following are some objectives for the research which the students develop:

- To determine the various models available in each category
- To determine the functions that each model can perform
- To determine the potential capacity of each model
- To determine the cost of each model
- To analyze and evaluate potential personal use and classroom use of each model

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To perform accurate and efficient computations using mathematics facts, operations, and number concepts which are necessary for functioning in our society**

MATHEMATICS

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS			
	Level 1	Level 2	Level 3	Level 4
1.1 To apply the structure of our number system in a variety of concrete and abstract experiences	Uses chip-trading games to develop place value concepts.	Plays cribbage or other games involving computation.	Uses positive and negative numbers in the 4-quadrant Battleship game.	Applies methods for finding large prime numbers.
1.2 To apply the decimal structure of our place value system	Counts by 10's.	Uses money, metric measures, and calculators for setting decimal points and rounding off.	Uses scientific notation, expanded notation, and exponents.	Uses very large and very small numbers (e.g., light years, wavelengths) in problems.
1.3 To apply the concepts and properties of addition and subtraction to related computation algorithms using concrete instructional aids and oral and written exercises	Uses Cuisenaire rods and Unifix cubes.	Plays modified card game of War in which students play two cards and the highest sum or difference takes all.	Explores addition of numbers leading to palindromes.	Keeps a set of books, entering debits and credits and explains cash flow.
1.4 To apply the concepts and properties of multiplication and division to computational algorithms using concrete materials, verbalization, and writing skills	Decides how to divide (share) six cookies among five students.	Uses cubes or blocks to model dimensions and volume.	Describes how to use patterns to determine maximum volume from a given piece of cardboard.	Multiplies and divides with very large (e.g., astronomy) and very small (e.g., microscopic biology) numbers.
1.5 To use the concepts of rational numbers in operations with fractions, decimals, and percents in a variety of concrete and abstract experiences	Uses concrete models to explain and demonstrate that the object is made up of parts.	Classifies and orders fractions (greater than, equal to, less than).	Solves a variety of problems using fractions.	Solves problems using decimals and percent (including money problems).

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.6 To demonstrate an understanding of the concepts of irrational numbers in operations with other mathematical systems (e.g., imaginary numbers, modular arithmetic)			Discovers value of Pi through experimentation and computations relating circumference and diameter measurements of a large variety of circular objects such as wastebaskets, coins, and clock faces.	Uses irrational numbers in solving a wide variety of problems.

GOAL 2.0: **To use logical thinking strategies in selecting and applying appropriate mathematical concepts, operations, and models for the analysis and solution of problems**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To determine the existence of a problem situation and identify relevant information	Defines and solves problems using manipulative materials in a variety of situations.	Defines a problem using both concrete and abstract models.	Reads and discusses a number of problem statements, defines the problem situations, and identifies data relevant to solving the problems.	Analyzes and interprets puzzles and brainteasers.
2.2 To analyze problem situations and develop alternative solutions	Solves problems using manipulative materials such as toys and blocks.	Determines possible methods for solution of a variety of verbal and concrete problems.	Examines both concrete and abstract problem situations and explores alternative solutions.	Discusses possible methods to solve real-life situation problems.

GOAL 3.0: **To apply the principles of nonstandard and standard measurement, including the metric system, in everyday situations and in specialized, technical fields**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To use appropriate terminology in direct comparison actitivies	Identifies tallest and shortest using a wide variety of concrete objects and the students themselves.	Uses appropriate terms to compare capacities of various common containers such as cups, pitchers, and milk cartons.		

MATHEMATICS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.2 To select and use appropriate non-standard units of measurement in a variety of activities	Draws pictorial representations of a wide variety of nonstandard units such as hands, feet, paper cups, and widgets, and applies these units in problem solving.	Measures distances outdoors with nonstandard units such as bicycle wheels, car wheels, and paces.		
3.3 To explain and demonstrate the advantages of a standard unit of measurement and particularly the metric system	Uses linear measurement in making comparisons of everyday objects with a meter stick and a yardstick estimating and verifying whether objects are longer or shorter than these standards.	Estimates and verifies length and area of common simple shapes using metric and non-metric units.	Estimates and verifies length, area, capacity, and mass of everyday objects using metric and non-metric units.	Applies standard measurement units to specialized fields such as medicine, engineering, and auto mechanics.
3.4 To use concepts and operations with standard units of measurement		Practices operations of addition, subtraction, multiplication, and division with standard metric and non-metric units.	Practices conversion of units *within* each system such as grams to kilograms.	Solves a variety of problems based on measurement activities.
ENVIRONMENTAL 3.5 To develop skills in the use of mathematics to quantify pollution and resource waste problems	Counts or otherwise quantifies simple pollution or resource waste data in the home-school environment (e.g., litter, water waste, school supplies, fuel).	Collects and evaluates data on community environmental problems and communicates these data to others (e.g., air pollution, noise, energy, and fuel use).	Compares information from other periods in history or other places to present day resource use and environmental pollution.	Identifies a community, national, or international environmental problem and assembles statistical data on it. Uses graphs, charts, or others means of mathematical communication.
3.6 To choose appropriate units when given various measurement situations	Chooses tool appropriate to measuring the length of objects when given a variety of common objects and a choice of measuring tools such as inch cubes, one foot rulers, yardsticks, and meter sticks.	Selects the appropriate tools for measuring volume and mass of common objects.	Given a recipe in customary units, converts measurements to metric units and uses the revised recipe in preparing food.	Chooses the appropriate *unit* to apply to the measurement of various objects including length, area, volume, and mass.

GOAL 4.0: To recognize, appreciate, and use geometric concepts

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To identify and construct simple geometric figures and three-dimensional models by applying appropriate concepts	Describes similarities and differences among attribute blocks.	Develops chart showing Euler's formula (Vertices + Faces = Edges + 2).	Constructs a hexaflexahedra (a complex geometric figure).	Constructs a stellated polyhedra (a complex geometric figure).
4.2 To apply appropriate computational skills in determining area and volume or capacity of two- and three-dimensional geometric shapes	Uses graph paper to measure area of quadrilaterals.	Measures surface area and volume of Cuisenaire rods, noting patterns that relate to length of rods.	Determines surface area and volume of various cylinders, cones, and rectangular prisms.	Determines maximum volume for minimum surface area of various cardboard container shapes.
4.3 To solve algebraic problems applying coordinate geometry principles	Completes dot-to-dot pictures using points for which coordinates are given.	Determines linear equations from lines on a coordinate plane, and given an equation, plots the corresponding line.	Plots various curved lines such as circles ($X^2+Y^2=25$), parabolas ($Y = X^2$), and hyperbolas.	Develops solutions to simultaneous equations from corresponding lines and intersections.
4.4 To apply logical thinking skills in developing geometric proofs using definitions, postulates, and theorems	Explores congruence and similarity (e.g., all squares are similar but may not be congruent).	Uses Venn diagrams to classify quadrilaterals such as a parallelogram, rhombus, square, rectangle, and trapezoid.	Analyzes the relationship between the angles and the number of sides of different polygons.	Studies various proofs of the Pythagorean theorem and attempts to create a new proof.

GOAL 5.0: To apply the principles of probability and statistics to interpreting and making predictions

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.1 To use techniques for collecting and organizing statistical data	Collects data for a "Birthday Month" chart.	Represents one set of data in different ways using charts, bar graphs, line graphs, and pies in order to discover the advantages of each.	Constructs a line graph to accompany a science or physics experiment.	Selects a project and represents collected data in an appropriate manner (e.g., line graph chart showing sunset times and location on the horizon over a six-month period).
5.2 To interpret and draw conclusions from existing data	Predicts how long it will take a candle to burn down using partial data on a line graph.	Determines adequacy of water available for crops using charts of snow depths.	Discusses own standardized test scores in relation to norms, mean, median, standard deviation, and quartiles.	Shares conclusions of own data collection project with a class through oral presentation or a written report.
5.3 To use the principles of probability to hypothesize and make inferences		Selects color cubes randomly from a bag and predicts the number of cubes of each color.	Demonstrates the high risk of gambling, determining the level of probability of various events (e.g., dice totals, betting odds).	Determines the level of probability of various combinations and permutations (e.g., cards, digits, sequences).

MULTICULTURAL

GOAL 6.0: **To develop an appreciation and understanding of the contributions that various cultures have made to mathematical concepts and applications**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
6.1 To relate the contributions of other cultures to the development of our modern number system and other areas of mathematics	Identifies basic shapes and patterns in artwork from other cultures.	Uses numeral systems such as Roman numerals.	Uses ancient systems of bases other than ten such as Mayan or Phoenician.	Describes achievements of great mathematicians in terms of the advancement these achievements facilitated.
6.2 To recognize similarities and differences between the counting system used in English and systems used in other languages	Counts to ten in Spanish.	Counts to ten in several Romance languages.	Counts to ten in Far Eastern and Middle Eastern languages.	Uses counting systems that are structured differently from ours (e.g., Eskimo, Tasmanian).

MULTICULTURAL

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
6.3 To identify the variations in computational algorithms as performed in different cultures	Computes with Scottish subtraction method.	Computes with European long and short division method.	Computes with lattice multiplication.	Computes with Hindu multiplication method.
6.4 To use computational instruments from other cultures	Uses the Abacus and Soroban.	Uses Napier's Rods.	Uses the same instruments for more advanced problems.	Uses logarithmic tables.
6.5 To play mathematical games from other cultures	Plays Native American Plum Stone game.	Plays Korean Yut.	Plays African Mancola games.	Plays Swedish Tablut (table).

GOAL 7.0: **To develop a positive attitude toward mathematics which will result in sustained involvement in mathematical studies**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
7.1 To apply fundamental skills, concepts, and structures of mathematics in problem solving related to everyday experiences	Takes attendance by counting students orally.	Keeps records such as scores, batting averages, and temperatures.	Estimates the height of a tree using similar triangles.	Computes the velocity of streams or traffic flow.
7.2 To develop self-confidence and competence in the use of mathematics in a wide range of success-oriented activities	Maintains a notebook that describes simple projects.	Checks computations with a calculator.	Explores open-ended problems.	Tutors younger students in selected mathematical operations.
7.3 To develop independence and initiative through discovery-oriented activities	Develops a system to classify a personal collection of objects (e.g., baseball cards).	Keeps a record of physical growth and school progress.	Chooses an independent study project to explore and present to class.	Prescribes own program of remediation and enrichment in mathematics.

MATHEMATICS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
CONSUMER 7.4 To apply mathematics in school activities related to personal consumer economics	Visits grocery stores to purchase items for class project.	Organizes a fund raising project.	Plans a class banking system using a local banker as a resource person.	Cooperatively plans a stock market speculation project.
CAREER 7.5 To understand how job satisfaction in mathematics-related occupations can be obtained by people with different attitudes, interests, and characteristics	Describes various training routes to job entry in mathematics and mathematics-related occupations.	Describes the skills necessary to acquire, maintain, and progress in a mathematics career.	Describes skills and processes that are necessary for a selected mathematics career.	Matches individual abilities and interests with skills and processes needed in a mathematics occupation.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

National Council of Teachers of Mathematics (NCTM)
1906 Association Drive
Reston, VA 22091

Publications: **Arithmetic Teacher**
Mathematics Teacher

California Mathematics Council (CMC)
Floyd Downs
3334 Verdun
San Mateo, CA 94403

Publication: **California Mathematics**

MULTICULTURAL EDUCATION

POINT OF VIEW

The basic aim of a multicultural instructional program is to help students accept themselves and other persons as having dignity and worth. To achieve this aim, a multicultural program places emphasis on similarities and differences among individuals and groups. Similarities are viewed as those characteristics which make people human. Differences are viewed as those characteristics which make each person or group unique and special. In this context, differences are viewed as positive. Thus, students are helped to respect and accept a wide range of diversity including physical differences, emotional differences, cultural differences, and differences in life-style among individuals and groups.

A multicultural instructional program is cross-cultural in nature instead of being structured upon separate and distinct racial or ethnic groups. A cross-cultural approach is more likely to promote respect and acceptance of all individuals and groups.

The program is also interdisciplinary in nature and draws from and contributes to instruction in social sciences, language arts, music, other arts, and other subjects whenever appropriate.

VIGNETTES

GOAL 5: To identify stereotyping, prejudice, and discrimination as it is manifested in many forms

LEVEL 1

Students in a third grade class are exploring differences among people, other living things, and objects. The teacher is helping the students discuss their feelings about differences among themselves and others and between what is familiar and unfamiliar. The students are exposed to several stories in which differences are a theme. The teacher reads stories such as *The Ugly Duckling* and *Cinderella* to the group. The teacher poses a series of questions which help the group draw on what they have read or listened to in thinking about the effects which differences often have for relations among people and groups. The questions are written on a chart in the reading area and are used frequently in group discussions. Following are some questions in the series:

- What does the word "different" mean?
- Describe the differences among various toys, fruits, and animals.
- List the ways in which people who are considered different are treated such as a new student in the class, someone who doesn't know how to play a game, people who are quiet, wear braces, or belong to a different ethnic or religious group. Role-play alternate ways to treat people who are considered different.
- Tell how characters in children's stories are treated negatively. Why were they treated this way? How do you think the negatively treated characters felt? What alternate and more positive behaviors could the characters in the story demonstrate when associating with someone they feel is different?

LEVEL 2

The teacher in a fifth grade class is helping the group develop a broad and personalized understanding of the effects of prejudice and stereotyping. The teacher reads different articles and stories in which some form of prejudice and discrimination is a major theme. These materials range from the story of *Cinderella* to a newspaper article describing a lawsuit concerned with charges of discrimination against women in hiring practices. Following is a general outline which the teacher has developed for a discussion. After the discussion, each student is required to write down at least three examples of prejudice or discrimination that were mentioned in the discussion.

- What kinds of remarks or jokes have you heard about people who are short, wear glasses, or have different ethnic or religious backgrounds?
- What remarks have you made about people whom you think are different? Have you heard these remarks before?
- What remarks have you heard that were made about you? How did you feel about the remarks? Were they fair? Should they have been stated? What did you think about the person who was making the statements? How did it make you feel about yourself?
- Think of the stories you have read or heard. Were there characters in these stories who made unfair remarks about others? How did the other characters feel? What happened?

LEVEL 3

The students in a ninth grade class are examining their own attitudes and behavior for evidences of prejudice and use of stereotypes. Following are three steps in a group activity which is designed to help students deal with this topic.

- Describe the kinds of stereotypic behavior that you have shown toward people you consider different.
- Suggest alternate, non-stereotypic behavior for you to demonstrate.
- Role-play for the class the new, non-stereotypic behaviors you plan to demonstrate.

LEVEL 4

The students in a twelfth grade class are analyzing examples of behaviors or situations which are perceived to be prejudiced or discriminatory in relation to a particular person or people.

The group collects articles discussing prejudice and examples from their own experience which they describe to the group. In small group discussions, the students analyze the examples. The main purpose of the analysis is to develop students' abilities to understand the motivation and intention underlying prejudiced behavior in other persons or the social factors that reinforce stereotypes and patterns of discrimination.

The small groups report to the total class on the examples and the highlights of the discussions. Other students suggest ways in which the person being discriminated against could handle the situation. The class repeats this activity on a regular basis.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: To be aware of ethnic ancestry and cultural heritage in relation to self-definition

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS			
	Level 1	Level 2	Level 3	Level 4
1.1 To demonstrate appreciation of the characteristics of one's own ethnic ancestry and cultural heritage	Identifies major characteristics of racial, ethnic, cultural, and/or religious groups to which one's own family belongs.	Identifies one or two major contributions that one's own racial, ethnic, cultural, or religious group has made to the development of the United States.	Identifies one or two major contributions that one's own racial, ethnic, cultural, or religious group has made to humankind throughout the history of the world.	Describes the characteristics of one's own racial, ethnic, cultural, or religious group that have been passed down through many generations.
1.2 To analyze the influence of ethnic/ cultural heritage and experiences on one's values and life-style	Identifies the factors which contribute and shape the life-style of cultural groups (e.g., environment, family roles, composition).	Describes how ethnic/ cultural heritage has influenced aspirations, likes, and dislikes.	Describes how personal perceptions of ethnic/ cultural heritage influence self-identify.	Analyzes how ethnic/ cultural heritage has influenced personal values.
1.3 To define personal strengths, capabilities and limitations	Identifies some personal capabilities and limitations.	Shares information with others about personal accomplishments and capabilities.	Analyzes ways to minimize personal limitations by fully utilizing strengths and capabilities.	Describes how self-esteem in others can help them minimize their limitations and utilize their strengths and capabilities.

GOAL 2.0: To be aware of the similarities and differences among individuals from diverse racial, ethnic, cultural, and religious groups within the community, the United States, and the world

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS			
	Level 1	Level 2	Level 3	Level 4
2.1 To recognize similarities and differences among diverse socioeconomic, racial, ethnic, cultural, and religious groups	Describes personal feelings or family customs that are held in common with people who are racially/ culturally different from self.	Compares characteristics among ethnic/racial/ cultural groups using sources for information such as poetry, short stories, biographies, dances, art, music, and cooking.	Compares experiences of various cultural/ethnic groups in the U.S. and identifies some major contributions of each group.	Completes academic tasks in small groups with others of diverse socioeconomic, cultural, racial, and/or ethnic background.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.2 To accept alternative beliefs, manners, customs, and life-styles of individuals and groups different from self	Enjoys learning about people culturally/ racially different from self.	Seeks social involvement in activities with students who are culturally different from self.	Compares alternative ideas about such things as beauty, value systems, and styles of communication.	Describes different perspectives which diverse racial/ethnic/cultural groups have on historical and contemporary events in the United States.
ENVIRONMENTAL 2.3 To understand how people from various places in the world differ in their views on resource use and environmental pollution	Develops simple action plans for working with others to solve problems.	Contrasts resource and environmental practices in other places in the world.	Discusses environmental-resource management concerns and works out cooperative programs to solve problems of common interest.	Demonstrates skills to gain information on feelings and attitudes toward natural resources and environmental conservation problems.

GOAL 3.0: **To be aware of the elements of different cultures**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To describe the elements that make up different cultures	Describes the elements of culture.	Analyzes the various elements of one's own culture.	Describes how elements of culture have influenced the various life-styles of ethnic and racial groups in historical and contemporary societies.	Explains how the cultural characteristics of groups in the U.S. have changed throughout the nation's history.
3.2 To compare the elements of diverse cultures	Identifies similarities and differences among elements of various cultural groups.	Describes how cultures have influenced one another.	Analyzes how diverse cultures have contributed to the common culture of the United States.	Identifies ways of thinking and acting which support the rights of various cultural groups to coexist with equal opportunity in the United States.

GOAL 4.0: **To demonstrate skills in maintaining positive relationships with other individuals or groups and in responding constructively to conflict in relationships**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To develop sensitivity to problems of others through learning and practicing interpersonal skills	Identifies behaviors which have a positive or negative impact on others.	Describes ways in which different people express their feelings.	Responds in supportive ways when others express or demonstrate a need.	Initiates cross-cultural communication and is comfortable working with others who are culturally/racially different.
4.2 To analyze factors that contribute to conflicts	Describes personal behaviors which contribute to conflicts with others.	Describes influence others have on one's participation in interpersonal or group conflicts.	Analyzes ways in which different styles of verbal and nonverbal communication influence conflict.	Takes the initiative to prevent or resolve conflicts that might not affect them.

GOAL 5.0: **To identify stereotyping, prejudice, and discrimination as it is manifested in many forms**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.1 To identify causes and consequences of stereotyping, prejudice, and discrimination	Describes the actions of people in situations found in stories in terms of "fairness."	Discusses own experience in daily living with stereotyping, prejudice, and discrimination.	Identifies own behaviors which are a result of prejudice or stereotyping.	Identifies alternate ways of thinking and acting in situations involving stereotyping, prejudice, or discrimination.
5.2 To confront behavior in self and others which is based on stereotyping, prejudice, and discrimination	Describes own and others' behavior which reflects stereotyping or prejudicial thinking.	Discusses examples of stereotyping, prejudice, and discrimination related to racial and ethnic groups in newspapers, instructional materials, and on television.	Analyzes the causes and consequences of racism in the United States for specific groups of people.	Compares discrimination patterns and stereotyping among different cultural groups and nations.

MUSIC EDUCATION

POINT OF VIEW

The main purpose of music education is to develop students' understanding and appreciation of the expressive and aesthetic qualities of music as a modality of communication. To accomplish this, concepts and skills are presented in a sequential and developmental manner. Activities are designed to allow students to participate actively in demonstrating understanding of the concepts of rhythm, melody, harmony, form, tempo, tone color, dynamics, texture, and style. Emphasis is placed on learning through exploration, discovery, and inquiry. All types and styles of music such as folk, art, popular, and ethnic are performed and analyzed.

Music has other values in education. Emotions can be experienced and expressed in a positive, constructive way, giving students an opportunity to explore and understand their feelings. Self-knowledge and sensitivity to others are developed through group interaction as students create, perform, and actively listen to music. Many levels of individual needs can be accommodated within the context of group experience.

Music provides a unique vehicle for developing multicultural and historical understandings.

GOAL 2: To develop the skills necessary for students to be able to function as intelligent listeners, performers, and creators of music

LEVEL 1

In the following activity the teacher is helping students develop their ability to perceive aurally the patterns of various rhythms. The activity is one in a series in which the students use the visual, tactile, and kinesthetic senses to reinforce aural acuity. Although it is a group activity, because of the nature of the response the teacher is able to identify students who are not able to respond accurately.

The teacher claps a brief portion of the rhythm of a song. The rhythm is a pattern which the students identify and echo by clapping in response to the teacher. If any individual response is not accurate, the teacher asks the group to close their eyes and listen again. The students echo the teacher each time. The teacher can also ask individual students to echo the pattern.

LEVEL 2

The following activity is designed to develop concentration and listening acuity by students.

Initially students clap the rhythm in canon, one measure behind the teacher. After the students have mastered this exercise, they sing the melody and clap the rhythm in canon, one measure behind the melody. The effect is similar to singing a round with themselves.

LEVEL 3

The following activity is an example of an exercise that is designed to develop students' aural acuity through the analysis of compositional techniques such as octave displacement, fragmentation, diminution, canonic imitation, and syncopation. Aural perception of these techniques can be reinforced at this level through the use of musical instruments and the voice.

The musical selection which the students analyze is Stravinsky's *Greeting Prelude*. The students listen to the selection several times. During each listening session they are guided by the teacher who poses questions and makes comments which help the students identify the compositional techniques used by the composer.

Initially the students recognize that Stravinsky has used *Happy Birthday* as the basic melody for the composition. Listening to the selection a second time, the students discover that the technique for octave displacement, either higher or lower, is applied to the melody. At this point, the group applies the technique to another selection, *Are You Sleeping?*, using their voices and various instruments.

Building on this experience, the group listens to the selection another time and identifies how octave displacement is used through instrumental fragmentation, with different tones of the melody played by different instruments.

In another listening session the students discover that the melody is repeated in diminution after each statement of the first two phrases of the song. They discuss the term "to diminish" (i.e., to shorten durational values to half of the original) and clap the rhythm in original and diminution forms to clarify their understanding of this technique.

Through further listening the teacher leads the students to discover that, in the third phase, the trombones imitate the melody played by other instruments at a distance of two beats. It sounds like a round. During a final listening, students recognize that the final chord of the first statement of the theme falls off the beat. It is a displaced accent, the basis of syncopation.

LEVEL 4

The following activity uses a series of questions to develop advanced students' understanding of the constituent and expressive elements of music. The questions may be used also in nonperformance classes concerned with areas such as general music theory, music history, and literature. Musical selections that include combinations of polyphonic and homophonic textures are used.

Two examples are the *Fugue in G Minor* by Bach and the "Hallelujah Chorus" from *The Messiah* by Handel.

Students answer the following questions during independent study and/or during group discussion:

- Imitation is one technique used in this music. Can you give examples of where it is used?
- The texture of the music varies from pure polyphony to pure homophony. Can you give examples of where it is used?
- How is contrast created?
- Where and how is counterpoint used?
- Where do modulations of key and mode occur? Why do they occur?
- Where and how do cadences occur? What is their meaning?
- How do repetition and variety occur in the music?
- What techniques are used to create tension and to provide for a release from tension?

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To develop the ability to perceive and respond to the expressiveness of sounds in music and to formulate aesthetic criteria for making value judgments about music**

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS			
	Level 1	Level 2	Level 3	Level 4
1.1 To increase awareness and pleasure in listening to musical sounds	Interprets music through body movement.	Works with many different kinds of sound producers including homemade, ethnic, and traditional instruments.	Seeks out opportunities to listen to and learn about music.	Analyzes experimental music for unusual combinations of sounds.
1.2 To increase awareness and pleasure in experiencing the aesthetic qualities of musical patterns and designs	Repeats specific patterns in music.	Identifies repetition in music through clapping and other body movements.	Improvises musical repetition and variety using the voice or a musical instrument.	Analyzes sophisticated patterns and designs in the structure of music that contribute to a sense of unity and variety.
1.3 To value music both in and out of school in a variety of musical experiences	Participates in classroom musical activities by singing, playing simple instruments, moving to music, and listening attentively to music.	Participates in classroom music instruction, instrumental classes, and choral ensembles for deepening experiences with music.	Participates in musical experiences both in and out of school including attendance at concerts in the community.	Demonstrates increased skill and mastery in a variety of musical activities, both in active performance and active listening.
MULTI-CULTURAL 1.4 To recognize the value and role of music in the lives of individuals and cultures	Participates in activities that involve the music of many different ethnic groups and cultures.	Reads about music, composers, and musicians.	Participates in the historical study of music and articulates the personal value of music.	Describes musical achievements within social and historical contexts.
1.5 To use aesthetic criteria for making value judgments and expressing individual musical preferences	Performs in musical activities that are appropriate to the level of experience.	Identifies musical compositions.	Expresses increasing discrimination in judgment and appreciation of artistic performance and composition.	Uses a broad vocabulary of musical and aesthetic terms in describing and judging music and musical performances.

GOAL 2.0: **To develop the skills necessary for students to be able to function as intelligent listeners, performers, and creators of music**

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS			
	Level 1	Level 2	Level 3	Level 4
2.1 To develop listening skills	Identifies and differentiates simple characteristics of rhythm, pitch, tempo, dynamics, tone color, and form.	Identifies and differentiates more complex melodic and rhythmic patterns and harmonic structure.	Identifies compositional techniques in music such as augmentation, diminution, polyphony, polyrhythms, syncopations, and modulations.	Independently analyzes the use of elements of music and techniques of composition to structure statements in music.
2.2 To develop singing skills	Sings a song such as "Go Tell Aunt Rhodey" with melodic and rhythmic accuracy.	Sings rounds and melodies with descants expressively and accurately.	Adapts to the maturational changes in singing voices.	Sings alone and in ensembles with increasing independence and artistry.
2.3 To develop skills in moving to music	Expresses and responds freely to musical concepts with the body.	Illustrates musical structure such as melodic contour and form through movement in space.	Expresses complex musical concepts such as irregular meters, polyrhythms, counterpoint and theme, and variation through movement.	Choreographs dances.
2.4 To develop skill in playing instruments	Plays simple tunes, ostinatos, and bourdons on melodic instruments and uses rhythm instruments to accompany singing, playing, and moving to music.	Plays the recorder and common orchestral instruments.	Plays the guitar or orchestral instruments in ensembles.	Participates in performing organizations.
2.5 To develop skill in creating music	Improvises simple melodies and rhythm patterns using voice, body, percussion, and instruments.	Creates vocal and instrumental ostinatos and harmony and uses aleatory techniques.	Creates compositions using binary, ternary, rondo, and theme and variation forms.	Uses techniques such as fragmentation, octave displacement, retrograde inversion, augmentation, and diminution, and tapes treatments in composing original music.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.6 To develop skill in reading and writing music	Labels, notates, and reads interval patterns of the pentatonic scale and rhythmic values including whole, half, quarter, 8th notes, and their equivalent rests.	Reads simple melodies and complex rhythm patterns.	Reads two- and three-part harmony.	Sight reads music at a functional level to participate in a choral or instrumental performing group.

GOAL 3.0: **To develop understanding of the constituent and expressive elements of music that are essential to promote musicality, aural discrimination, aesthetic sensitivity, and understanding of musical application**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To demonstrate understanding in the use of rhythm	Demonstrates understanding of the pulse, meter, and pattern of rhythm in singing, playing, or moving to music.	Claps or moves to polyrhythms and changing meter.	Analyzes how a composer uses rhythmic concepts to achieve various effects.	Performs music that contains complex rhythmic relationships.
3.2 To demonstrate understanding in the use of pitch	Distinguishes pitches that are relatively higher or lower, indicates the contour of a melody through movement or line drawing, and discriminates melodic direction.	Uses letter names as symbols for pitch, forms the pattern of major, minor, and pentatonic scales, and plays simple melodies on an instrument.	Builds a tone row and identifies various pitch-related compositional techniques such as imitation, retrograde inversion, and octave displacement.	Constructs various modes and analyzes the effect that the contour of music has upon the listener and the meaning of the music.
3.3 To demonstrate understanding in the use of harmony	Shows sensitivity to a balance between harmony and melody in singing or playing an accompaniment.	Sings or plays a round and maintains a balance with the other voices.	Constructs tonic, dominant, and subdominant chords with resonator bells, identifies them on the autoharp, and uses them to accompany folk songs.	Sings four-part harmony and plays a chordal accompaniment on the piano, autoharp, or guitar.
3.4 To demonstrate understanding in the use of form	Moves to a phrase and identifies like and unlike phrases or sections of music.	Illustrates common forms of music through movement in space with others, compositions, and graphics.	Analyzes common forms in listening to and performing music.	Analyzes larger forms and free forms in listening to or performing music.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.5 To demonstrate understanding in the use of tempo and dynamics	Responds to tempo and dynamics in movement to music.	Uses tempo and dynamics sensitively in performing and creating music.	Analyzes how and why dynamics and tempo are used to achieve musical meaning and to express ideas.	Uses these musical elements with artistry in performing and creating music.
3.6 To demonstrate understanding in the use of tone color (timbre)	Identifies instruments of the orchestra by sound according to family and selects sounds for accompaniment to heighten the musical effect.	Uses a vocal quality suitable to the music being performed and identifies all of the major orchestral instruments by sound.	Analyzes how tone color is used to express musical ideas effectively.	Produces and controls the quality of the sound of the voice or instrument in relation to the musical effect of an ensemble.
3.7 To demonstrate understanding in the use of texture	Associates the texture of music with tactile or visual senses.	Illustrates the texture of music in a concrete manner such as with line drawings or movement.	Identifies homophonic, polyphonic, and monophonic texture in analyzing music.	Uses different kinds of texture in performance or composition.

GOAL 4.0: **To develop understanding and appreciation of various styles, forms, and functions of folk/ethnic, popular, commercial, and serious art music**

MULTICULTURAL

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To become aware of how the purpose and function of music in a particular situation influences composition, selection, and performance	Discusses purposes of songs (e.g., a lullaby which has a slow tempo, soft dynamics, and a legato melody because its purpose is to put people to sleep).	Analyzes how the elements of music can be used to describe a mood or an action or to suggest a story.	Analyzes how music is used to heighten the impact of radio and TV commercials and to manipulate the emotions of the listener/viewer.	Uses aesthetic criteria for programmatic and absolute music to draw conclusions regarding the various functions for which music is used in different cultures and societies.
4.2 To become aware of how instruments influence composition and style in music	Explores the quality and expressiveness of sound with voice and instruments.	Analyzes how the distinctive sounds of jazz, folk, and ethnic music are determined in large part by the instruments at hand.	Analyzes how electronic sound producers have influenced the development of new and unique styles in music.	Analyzes how instruments available at different times in history contributed to the styles and performance practices of art music.

MUSIC EDUCATION

	OBJECTIVES	Level 1	Level 2	Level 3	Level 4
MULTICULTURAL	4.3 To become aware of the ways in which the constituent and expressive elements have been combined in music from various countries and periods of time to produce characteristic styles and forms	Performs, moves to, and listens to a wide variety of folk, ethnic, popular, and art music, some with foreign language texts.	Analyzes musical styles and forms that express the ideas and feelings of a variety of ethnic groups and cultures.	Describes different combinations and emphases in the use of constituent and expressive elements of music to express people's concerns and feelings.	Analyzes music of various historical periods to show how characteristic styles and forms of music have been influenced by social values and environments.
ENVIRONMENTAL	4.4 To demonstrate skill in using creative expression as a means of bringing about constructive action to solve social and environmental problems	Learns songs, reads stories, views plays, and studies pictures on environmental subjects. Identifies and expresses positive and negative feelings generated by each example.	Writes simple stories and poems, writes or participates in plays, performs music, and creates art to express personal feelings about the environment and its resources.	Studies historical examples of how artistic expression influenced various social events (e.g., *Uncle Tom's Cabin*, slavery; "We Shall Overcome," civil rights; *Grapes of Wrath*, 1930's social conditions).	Identifies specific environmental problems in the community, state, nation, or world, and develops one or more forms of artistic expression to apply to specific environmental problems.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Orff Schulwerk Association (AOSA)
P.O. Box 18495
Cleveland Heights, Ohio 44118

Southern California Chapter
P.O. Box 902
Los Angeles, CA 90028

Northern California Chapter
P.O. Box 26268
San Francisco, CA 94126

Publication: **Orff Echo**

California Music Educators Association (CMEA)
Henry Avila, President 1978-80
P.O. Box 5091
Carmel, CA 93921

Publication: **CMEA News**
Mary Val Marsh, Editor
879 Rosecrans St.
San Diego, CA 92106

Music Educators National Conference (MENC)
1902 Association Drive
Reston, VA 22091

Publication: **Music Educator's Journal**

Organization of American Kodaly Educators (OAKE)
131 Second Street
Farmingham, MA 01701

Publication: **Envoy**

PHYSICAL EDUCATION

POINT OF VIEW

The physical education program provides a laboratory in which students acquire skills, knowledge, and attitudes by participating in a wide range of physical movement related to the growing body. It is a program and a process in which the teacher assists each student to understand and respect the body, gain skill in efficient and effective movement, and develop attitudes and practices that contribute to maintaining good physical fitness for life.

As students progress through a widening range of experiences, emphasis is given to identifying individual interests and purposes with group interests and purposes through recognition that the common good is achieved through the joint efforts of all. Social abilities and interests are developed along with self-evaluation.

In view of the prediction of a phenomenal increase in time free from work, the physical education program should put stress on developing motivation and skills for the satisfying use of leisure time. The end result of a well-balanced program of physical education is young men and women who move with ease and confidence, who utilize physical activity as a satisfying means of expression, and who maintain a high level of physical performance.

The emphasis on refining movement and control of the body in physical expression is a unique characteristic of a physical education program.

VIGNETTES

GOAL 3: **To develop and maintain the best possible level of performance, understanding, and appreciation for physical fitness to meet the demands of wholesome living and emergency situations**

LEVEL 1

Students skip back and forth between two markers for a distance of approximately 50 feet. When they are finished, they sit and the teacher leads a discussion asking the students for their thoughts about why they are breathless. In summary, the students develop a definition of endurance in their own terms.

LEVEL 2

After completing the California Physical Fitness Test, the class reviews each item with the teacher. The students are asked to think about what each item is designed to test and why it is important. In conclusion, the students are asked to list different careers that make extra demands on each of the body components. For example, a firefighter needs strength in the upper body and, particularly, in the shoulders. An athlete needs to be agile. Housewives need endurance. Construction workers must have strong legs. Nurses need strength in the abdomen.

LEVEL 3

The students are scattered on the floor or playground with each assuming a guarding stance as in basketball. One foot is ahead of the other and the hands are out as if guarding. Movements forward and backward are made using a shuffle step with the feet retaining their appropriate position. Movements to the side should be sliding.

The leader of the group stands in front with a whistle and points in a direction. The players move in that direction (forward, backward, or to either side) as quickly as possible. When the whistle is blown again, everyone stops. Other signals such as "go" or "stop" can be used in lieu of a whistle.

In a follow-up discussion the students are asked to describe the various careers associated with basketball including playing, officiating, score keeping, sports writing, sales, radio and television broadcasting, and maintenance of supplies, equipment, and facilities.

LEVEL 4

The students are challenged to perform a number of endurance hops. They must complete each full set of hops without stopping.

- Hops on both feet—up to 200
- Staddle hops, laterally—up to 200
- Scissor hops, forward and backward—up to 200
- Hops on right foot—up to 50
- Hops on left foot—up to 50
- Squat jumps touching hands to floor and springing upward again and again as long as possible

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To develop a positive self-image which includes awareness and understanding of the performance of one's body, the use of the body as an important means of expression, and the body as an instrument for self-realization**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To understand body structure and function	Identifies and uses body parts on request.	Answers question "Why do I get breathless after running?"	Explains the effects of fatigue, illness, relaxation, exercise, and stress on the body.	Describes the relationship of nutrition to exercise for weight and growth rate.

224

225

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.2 To develop a positive body image and positive feelings about use of the body	Demonstrates self-confidence by freely choosing to play a game.	Shows positive attitudes about improving own skills.	Participates willingly in coeducational activities.	Moves with confidence and ease and is willing to try new activities.
1.3 To demonstrate use of the body as an instrument of communication	Tells a story through rhythmical movement.	Expresses joy, fear, anger, through movement.	Creates a movement sequence by self or with others depicting "Life in the Wild West."	Moves with ease and confidence in different situations indicating a sense of well-being.
1.4 To develop an increased awareness of the kinesthetic sense	Walks backwards on a balance beam.	Performs a head balance or cartwheel.	Dribbles the ball with feet or hands around a maze.	Catches a wave at its peak and rides down its face.
1.5 To use physical education learning activities to convey career information and career knowledge	Demonstrates an awareness of physical capabilities and limitations.	Relates the mastery of physical skills to individual success.	Describes self-perception of physical abilities related to actual career requirements.	Demonstrates self-confidence in anticipated career choices.

CAREER

GOAL 2.0: **To develop efficient and effective motor skills, to understand the principles involved in those skills, and to develop an appreciation for the aesthetic quality of movement**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To demonstrate efficient movement to accomplish a task using the basic principles of movement	Throws an object overhand using the principles of opposition and follow-through.	Demonstrates eye fixation and focus by catching batted, ground, and fly balls.	Demonstrates stable base for support by performing an inverted tumbling stunt.	Demonstrates correct body mechanics in lifting, pushing, and carrying heavy objects.

PHYSICAL EDUCATION

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.2 To demonstrate effective movement in performing activities necessary for daily living and participation in games, sports, and dances appropriate to each individual	Participates in children's games and rhythms requiring running, hopping, dodging, catching, throwing, kicking, and striking.	Participates in dances of different cultures using the dance skills necessary.	Demonstrates balancing, springing, and vaulting skills in tumbling and activities on apparatus.	Executes the skills necessary for successful participation in one or more lifetime activities (e.g., golf, tennis, swimming, racquetball, dance).
2.3 To demonstrate an appreciation for the skillful performance of others	Answers the question "Why did team A win?"	Indicates appreciation to a teammate for being batted in from second base in softball.	Analyzes a successful spike in volleyball for its explosive movement.	Applauds the ability of opponents.
2.4 To comprehend the correct elements of various movements, strategies, safety procedures, and basic rules	Tells the difference between a skip, hop, jump, and gallop.	Explains the rules of playground games (e.g., tetherball, foursquare, handball).	Shares ideas of team strategy with members.	Explains why it is necessary to warm up muscles preliminary to vigorous activities.
CAREER 2.5 To understand that physical education can contribute to a person's total life-style in several ways	Identifies the use of motor skills in four recreational or entertainment occupations.	Identifies present life-style and the conditions determining that life-style.	Describes the motor skills necessary to enter, maintain, and progress in a career.	Demonstrates motor skills needed for predicted or desired life-styles.

GOAL 3.0: **To develop and maintain the best possible level of performance, understanding, and appreciation for physical fitness to meet the demands of wholesome living and emergency situations**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To strengthen the muscles of the heart and improve the other parts of the cardiovascular system in order to perform harder and longer with less effort	Jumps a short or long rope for an extended period of time.	Runs a course around the playground increasing the distance covered each week.	Jogs fast enough and long enough to maintain heart rate at the correct intensity.	Participates in activities that are aerobic in nature such as cycling, swimming, and dancing.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.2 To acquire sufficient muscular strength and endurance to keep healthy and to perform activities based on needs and interests	Supports own weight from overhead horizontal ladder.	Performs a series of knee-bent situps.	Performs a combination of stunts on a horizontal bar.	Demonstrates sufficient muscular strength and endurance to maintain efficient posture, perform work requirements, and meet emergency situations.
3.3 To maintain and acquire sufficient flexibility to move freely and to perform activities based on personal needs and interests	Performs the inchworm walk and other animal walks requiring total stretching.	Demonstrates a full range of motion in arm and leg swings and stretches.	Demonstrates muscular balance and symmetry in static and dynamic posture.	Demonstrates efficient flexibility of the muscles and joints by performing at a satisfactory level tests which measure flexibility of muscles of lower back and back of legs, front of shoulder joint, and upper back and trunk.
3.4 To understand and appreciate the components of physical fitness as they affect behavior and health	Answers the question "Why does the heart beat faster during and after jumping rope?"	Understands why it is necessary to warm up muscles before vigorous exercise.	Compiles own physical performance test records based on previous scores and evaluates own progress in each component of performance.	Designs a physical fitness program based on knowledge of personal strengths and weaknesses.
3.5 To understand that all individuals need physical fitness to help cope with the changing society	Demonstrates awareness that various individuals contribute to individual and team efforts.	Identifies physical activities that contribute to individual and group goals on a team.	Demonstrates an appreciation for all forms of physical endeavor.	Describes the importance of physical fitness and its contribution to society.

CAREER

GOAL 4.0: To develop socially desirable behavior in interactions with others

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To develop a feeling of group consciousness	Participates in activities with rules decided upon and adhered to by the group.	Recognizes that the performance of the team or group supersedes the individual.	Carries out assignment to accomplish group or team task.	Accepts the majority decision of group or team members.

PHYSICAL EDUCATION

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.2 To develop a sense of responsibility	Assumes responsibility for the care and use of equipment.	Assumes the responsibility of leadership in roles such as those of team captain, square leader, and referee.	Takes turns in use of courts in playing handball, paddle ball, or tennis.	Plans and fulfills a personal contract.
4.3 To develop awareness and respect for other persons	Lets others join in activities already in progress.	Compliments others on their efforts.	Teaches skills to a pupil who was absent when the skills were taught.	Participates willingly in activities with others who have differing abilities and characteristics.
CAREER 4.4 To understand the relationship between physical education skills acquired through education and employability in physical education related occupations	Develops rules with others, accepts direction, and takes responsibility.	Demonstrates understanding of the relationships between people and their effects on the accomplishment of tasks.	Describes the relationship between socially desirable behavior involving movement in activities in interaction with others to all career clusters.	Demonstrates socially desirable behavior that is basic to a chosen career cluster in activities involving movement in interaction with others.

GOAL 5.0: **To develop interest and proficiency in using the skills essential for successful participation in worthwhile physical recreation activities**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.1 To participate in physical activities as a source of enjoyment in leisure time	Participates in a variety of activities during noon time and recess such as skipping with a rope, playing hopscotch, and playground games.	Signs up for intramural activities.	Participates in the organization of a variety of school and community recreational activities such as dances, sporting events, and outdoor activities.	Is committed to physical activity on a regular basis.
5.2 To understand the value of participation in physical activities as a worthwhile use of leisure time	Chooses to play outside rather than watch television.	Chooses to be involved in a physical activity after school.	Explains the necessary precautions to take in jogging as well as the physiological benefits.	Discusses the level of personal satisfaction derived from accomplishing a difficult selected physical task (e.g., completing a long distance run or backpacking trip).

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.3 To learn about recreational opportunities in the community	Knows the safest way to the neighborhood park.	Knows of various private and public community agencies offering recreational programs.	Knows how to take advantage of the variety of activities provided by the school and community.	Knows what is required and the procedures necessary in order to use the recreational facilities in the neighborhood and surrounding communities.
CAREER 5.4 To develop the knowledge and interest in physical education that can enhance leisure time activities	Demonstrates understanding of the importance of each individual in a team effort.	Demonstrates awareness of own strengths and weaknesses as related to a team effort.	Identifies own role in society and its effect on increased personal satisfaction and improved group achievement and morale through recreational activities.	Demonstrates mastery of the skills basic to a chosen recreational activity.
ENVIRONMENTAL 5.5 To develop awareness of how various recreational activities affect the environment	Participates in class walks around the neighborhood to enjoy flowers, animals, and to observe examples of ecological phenomena.	Gains skills in outdoor physical activity and observation of natural phenomena. Observes and evaluates the effects of recreational practices on the local environment.	Describes the long-term effects of recreational activities which pollute or destroy natural and historical artifacts or overly consume resources.	Makes recreational choices which permit the enjoyment of natural beauty, wildlife, cultural and historical resources, and which minimize land destruction and resource waste.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Alliance for Health, Physical Education and Recreation
1201 - 16th Street, N.W.
Washington, D.C. 20036

Publication: **American Alliance for Health, Physical Education and Recreation Journal**

California Association for Health, Physical Education and Recreation
401 South Hartz Avenue, Suite 306
Danville, CA 94526

Publication: **California Association for Health, Physical Education and Recreation Journal**
The Times

SCIENCE EDUCATION

POINT OF VIEW

Science learning experiences should be a source of values and attitudes that help students care about themselves and how they relate to their environment. As students become aware of natural beauty, they develop appreciation for all life forms. As they learn about career opportunities in science, they develop awareness of social problems that depend heavily on science and technology for management. When students engage in constructive and critical thinking, they develop a willingness to have their own ideas questioned and tested.

Science is a discipline for gathering information from nature and thinking about it. As students observe and measure natural phenomena, they learn ways to organize and present the data. This information, in turn, is the basis for proposing hypotheses and testing them through further observation and measurement. The cyclic process of scientific inquiry never ends. Use of the process depends on the development and reinforcement of skills in the use of language and mathematics.

Science is also a body of knowledge, including facts, generalizations, and theories. Overarching principles relate science disciplines to one another and to other areas of human thought. Scientific literacy includes understanding of how knowledge can be used through technology and the political process to benefit human beings.

A science program, particularly in the early learning stages, contributes to the reinforcement of oral and written language skills without learning being completely dependent on those skills. If science has a unique characteristic, it is that the subject matter is as broad and varied as the universe itself.

GOAL 3: **To develop fundamental skills in the manipulation of materials and equipment, in caring for and handling living organisms, and in the gathering, organization, and communication of scientific information**

LEVEL 1

In the following activity, students learn about the steps and procedures that are necessary in a scientifically organized experiment. One basic process, dyeing cloth, is repeated several times. Each time either the steps are varied or the materials are changed. The results of each trial are examined and some inferences are drawn concerning the consequences that can be predicted in future experiments.

The teacher provides a variety of natural materials which can be used to dye cloth such as beets and onion skins. The beets need to be dried before being used for dyeing. The students weigh the beets and hang them in a place where they can be observed easily. As the beets dry out, the students repeatedly weigh them and fill a plastic bag with water equivalent to the difference in weights between the last observation and the original one. The students develop a chart for presenting these data.

The students use a simple book on dyeing, read the instructions, and develop a plan to vary materials and steps in the process within a systematic framework. After each trial of the experiment, the results are recorded in a book with a sample of the dyed material. By the final trial of the experiment the group has developed a book recording the results. Throughout the experiment, the students discuss and predict the results of each new trial using their experience with previous trials to substantiate the predictions.

LEVEL 2

Students in this science activity are required to observe a group of objects that have been sorted and to use the process of logical deduction in order to verbalize the rule or categories used in the classification.

The teacher provides several boxes of assorted junk items. Six or eight items in each box are sorted into two groups according to some property (e.g., transparency, shape, color, metallic, and nonmetallic). The students identify the rules used in sorting. If the responses are not accurate, the teacher asks other students to verify their rules with the objects. More than one "right" answer often emerges (e.g., "hard" and "transparent" may both work to classify a given set of objects). Successively more difficult or subtle "rules" are used as students catch on. Students think up combinations to try on each other and write the rules on a chart. Everyone is free to test out rules or create new ones.

LEVEL 3

Given the results of an experiment, students are required to analyze the steps in the experimental process and develop further variations on the original experiment.

The teacher provides students with strips of paper towel of newsprint, each with a spot near one end marked with various combinations of marking pens. Students allow water to soak up into the towel from the marked end, observing that colors separate along the strip. Discussion reveals that different colors seem to move along the strip at different rates in a consistent manner. Students are then challenged to predict which pens were used to mark their strips and to devise a way of finding out. Follow-up activities can involve other sources of color and solvents.

LEVEL 4

The class is studying about how things adapt in order to survive in a variety of environments. The class is divided into groups of three or four students. Each group is given a description of an environment which includes temperature range, moisture and light conditions, geographic features, and possible predators. The groups are given the assignment to invent an organism which could survive in that environment. Each group makes a presentation to the class which includes oral, written, and pictorial representations of the organism and its environment, a discussion of how its structures and behaviors are adapted to the environment, what it eats, how it survives, how dense the population might be expected to be, and how it might relate to man.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: To develop values, aspirations, and attitudes which promote personal involvement of the individual with the environment and society

SAMPLES OF LEARNER BEHAVIORS

ENVIRONMENTAL

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.1 To develop ways of expressing curiosity about objects and events	Asks questions about unfamiliar objects and events.	Shows willingness to examine and organize objects and events in the environment.	Seeks relationships between an event and what precedes it and/or what follows it.	Speculates about properties of substances that are not testable with available resources.
1.2 To show an awareness of and respond in a positive manner to beauty and orderliness in the environment	Reponds in a positive manner to color, form, texture, arrangement, and the design of objects in the environment.	Seeks opportunities to share observations and feelings about aesthetic experiences in science.	Searches for and reports evidences of order and symmetry when observing and investigating the environment.	Uses science skills and knowledge to create pleasing effects in sound, color, and texture.
1.3 To appreciate and respect all living organisms (including self) and their place in the environment	Shows concern for the safety and well-being of self and others.	Accepts responsibility for the care of living organisms in natural and artificial environments.	Seeks to influence others to treat and care for living things properly.	Describes the interdependence of organisms and the implications for survival.
1.4 To take an active role in solving social problems related to science and technology	Practices conservation in use of food, energy, and materials (e.g., avoids wasting paper).	Describes ways in which the products of science could be used for the betterment of mankind.	Expresses an opinion on a social issue (e.g., land use, alternative energy sources) using knowledge of science/technology to support it.	Compares viewpoints of various groups on science/technology-related social issues such as energy use.
1.5 To weigh alternative scientific, economic, psychological, and social factors when considering possible resolutions to problems		Demonstrates a willingness to examine changing conditions when dealing with problems.	Identifies alternative factors or tradeoffs involved in problems such as pollution control (e.g., cost, employment).	Deliberately examines a variety of alternative viewpoints on scientific issues with a view to forming opinions about them.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
1.6 To organize and report the results of scientific investigations in an honest and objective manner	Describes what is actually observed.	Shows willingness to log only those data actually gathered.	Reports results honestly and objectively, even when data conflict with own ideas.	Takes initiative in estimating the reliability of findings and the accuracy of conclusions based on data gathered.
1.7 To practice a willingness to subject data and ideas to the criticism of peers	Listens to the ideas of others.	Readily admits own mistakes upon becoming aware of them.	Shows a willingness to listen critically to explanations of others.	Accepts and responds objectively to criticism of own ideas.
1.8 To exhibit a critical, questioning attitude toward inferences, hypotheses, and theories	Asks questions about statements.	Offers alternative hypotheses to explain something (e.g., why leaves turn in the fall).	Shows a willingness to confront contradictions between data and possible explanations.	Tests "theories" of others which disagree with own.
1.9 To habitually apply rational and creative thinking processes when trying to find relationships among seemingly unrelated phenomena and when seeking solutions to problems	Spontaneously attempts to describe an object or event that has attracted one's attention.	Shows willingness to look for problems and note the unexpected.	Persists in seeking causes for events when they are not immediately apparent.	Applies science problem-solving techniques in a non-school situation (e.g., diagnosing what is wrong with a car engine).
MULTI-CULTURAL 1.10 To give attention to and value science as an endeavor of human beings from all racial, ethnic, and cultural backgrounds	Enjoys stories and biographies about scientists and others engaged in science-related activities.	Expresses belief that race, sex, or nationality should not constitute a barrier to scientific study.	Chooses to gather information and report on the contributions of other cultures to the scientific world.	Describes the scientific contributions of human beings from varying cultural backgrounds.
CAREER 1.11 To consider science-related careers and make realistic decisions about preparing for such careers, taking into account abilities, interests, and preparation required	Identifies individuals in various science-related careers.	Acknowledges importance of many science-related careers of people in our society.	Values the abilities, interests, and preparation required for a science-related career.	Makes a responsible, realistic decision about the pursuit of a science-related career.

SCIENCE EDUCATION

GOAL 2.0: **To develop and apply rational and creative thinking processes**

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
2.1 To generate data by observing, recalling, recognizing, identifying, and measuring	Names or describes characteristics of an object (e.g., temperature, weight, color, size, texture, structure).	Recognizes in an unfamiliar object properties identified in previous observations of familiar objects (e.g., dispersal adaptation of an unfamiliar seed).	Verbalizes need to repeat observations as a means of improving reliability and to verify data.	Differentiates constants from variables and identifies correlational changes and variables.
2.2 To organize data by comparing, ordering, classifying, and relating	Identifies similarities and differences in a set of objects; separates a set into groups according to a single characteristic such as size, shape, or color.	Identifies and uses various ways to classify objects including systems commonly used by scientists.	Develops arbitrary classification systems wherein objects can be put into mutually exclusive categories; uses quantitative measurements as a criteria for grouping.	Groups on the basis of a continuous variable; uses an accepted classification system to key or identify objects or phenomena.
2.3 To apply and evaluate data and generate theories by hypothesizing, predicting, inferring, generalizing, theorizing, explaining, justifying, and judging	Suggests possible reasons as to how events have taken place and what has caused them.	Identifies statements or data that have no direct relationship to the solution of a specific problem; identifies contradictions that appear within the data.	Draws inferences from data; distinguishes between data and inferences.	Examines various experimental designs and identifies the problem areas and limitations of a given design.
2.4 To use data-generating and theory-building processes in a cyclic manner to solve a problem	Describes a discrepant event and seeks possible explanations of it (e.g., why the frost forms on only part of the roof).	Defines a problem related to a discrepant event and tests alternate solutions to the problem	Evaluates and revises hypotheses on the basis of new data.	Identifies data needed to test an hypothesis, designs an experiment to generate the data, records and organizes data, and evaluates the hypothesis in light of the new data.

GOAL 3.0: **To develop fundamental skills in the manipulation of materials and equipment, in caring for and handling living organisms, and in the gathering, organization, and communication of scientific information**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.1 To assemble and use laboratory apparatus, tools, and materials in a skilled manner, giving due attention to accident prevention	Manipulates simple materials, apparatus, and equipment in a safe manner.	Demonstrates growth in the ability to manipulate more complex science materials and equipment (e.g., microscope, telescope).	Acquires and assembles appropriate science apparatus, materials, and equipment in order to obtain data.	Designs and constructs experimental apparatus; selects materials to conduct independent investigations.
3.2 To demonstrate proper techniques in handling and caring for living organisms	Handles classroom plants and animals carefully, following suggested procedures.	Identifies and meets basic needs for humane treatment of animals studied in the classroom and local environment.	Provides and maintains appropriate environment for plants and/or animals kept in the classroom or at home.	Instructs others in caring for living organisms.
3.3 To gather the descriptive and quantitative information needed for developing or testing references and hypotheses by making purposeful, objective observations of things and events	Makes guided observations of objects and events, defining basic characteristics.	Identifies discrepancies between different reports of the same event.	Distinguishes the difference between a guess or unsubstantiated opinion and a hypothesis based on organized data.	Describes expected outcomes of future observations based on inferences from past observations.
3.4 To gather needed information which has been generated by others from a variety of sources	Listens to the ideas and explanations of others.	Reads and comprehends science textbooks and reference materials and watches and comprehends science films and TV programs.	Finds sources of information needed to solve a problem.	Interviews an "expert" to obtain needed information; asks relevant questions.
3.5 To record observations accurately and organize data and ideas in ways that enhance their usefulness	Orally describes a series of events that took place.	Records data in tabular form.	Interprets graphs and displays data graphically.	Uses computer program to store, retrieve, and process data.
3.6 To communicate with others (orally and in writing) in a manner that is consistent with scientific conventions	Orally describes observations and answers questions.	Explains, either orally or in writing, the methods and procedures involved in carrying out an investigation.	Presents in oral and/or written form an accurate and documented description of an investigation.	Uses precise terminology and quantitative data in communicating about investigations or experiments.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
3.7 To use the SI metric system effectively	Counts, uses numbers, and balances objects on an equal-arm balance scale.	Measures linear distances using a metric ruler. Uses a balance to determine the mass of objects. Measures volume of liquids in a graduated cylinder marked in milliliters.	Estimates small distances, areas, volumes, and masses using appropriate units.	Uses a variety of instruments to measure distance, mass, temperature, volume, and electricity and makes calculations using metric units.
3.8 To apply appropriate mathematical concepts and skills in interpreting data and solving problems	Calculates temperature changes during the day.	Calculates rates (speed, flow, population growth) from data.	Finds mean (average), median, and modes of a series of measurements.	Determines degree of precision of measurements and quantities derived from measurements.

GOAL 4.0: **To develop knowledge of processes, facts, principles, generalizations, and applications—the products of science—and encourage their use in the interpretation of our natural environment**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To demonstrate knowledge of the processes of scientific inquiry	Experiments with a variety of dye solutions made from natural materials, records contents of each solution, and prepares a report with examples of cloth dyed with each solution.	Distinguishes between trial-and-error and more controlled investigations.	Matches names of various processes and products of scientific inquiry with examples (e.g., data, theory, experiment, inference).	Criticizes a scientific investigation, pointing out aspects of the inquiry process that have been omitted or inadequately done.
4.2 To demonstrate knowledge of the content of the major scientific subdisciplines	Names various science subdisciplines.	Matches activities of individual scientists to their respective disciplines.	Lists and briefly describes major content areas included within the biological, physical, earth, and space sciences.	Participates in scientific experiences within at least one of the science disciplines.
	Earth and space Identifies the sun as the earth's chief source of radiant energy.	Describes the phases of the moon and gives a brief explanation of them.	Identifies the planets in the solar system and their motions, relative distance from the sun, and major known characteristics.	Discusses theory of plate tectonics as it relates to location of major mountain ranges, earthquake belts, and volcanic activity.

ENVIRONMENTAL

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
ENVIRONMENTAL	**Biological science** Identifies common characteristics of living things.	Describes how a variety of living things are adapted to survive in their habitats.	Identifies major predator-prey relationships in a community.	Describes the flow of energy through an ecosystem.
	Physical science Identifies various materials as solids, liquids, or gases.	Describes effect of temperature changes on various substances.	Describes how the theory of moving molecules accounts for properties of solids, liquids, and gases.	Solves problems involving quantitative relationships between temperature, pressure, and volume of gases.
4.3 To demonstrate understanding of some basic generalizations, relationships, and principles applicable to all sciences (e.g., energy exists in a variety of convertible forms)	Recognizes that fuels are burned to generate electricity, heat homes, cook food, transport goods and people, and manufacture products.	Recognizes that the capture of radiant energy by green plants is basic to the growth and survival of all life on earth.	Identifies examples of various forms of energy including kinetic and potential, mechanical, heat, chemical, electrical, radiant, and nuclear.	Designs and constructs a device demonstrating at least four separate energy transformations.
4.4 To demonstrate knowledge of the relationships between science and society	Gives examples of societal problems related to science (e.g., energy, pollution, food supply).	Gives examples of ways in which the use of scientific knowledge has affected society.	Describes aspects of a society that tend to encourage or inhibit the advance of science.	Identifies types of data that should be collected and used in deciding on the ideal location for a park, factory, apartment building, or power plant and predicts the consequences of locating them in various places.
CAREER 4.5 To demonstrate knowledge of science-related career opportunities and the preparation needed	Compares the work done by people in different occupations, including science-related occupations.	Identifies ways in which careers such as engineering, medicine, chemistry, and agriculture are science related.	Identifies science-related careers of interest and describes preparation needed.	Engages in part-time career activities related to science.

SCIENCE EDUCATION

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
MULTICULTURAL 4.6 To demonstrate knowledge of contributions to science and technology made by men and women of various races and nationalities	Recognizes the names of several scientists from different races, nationalities, and sexes.	Identifies scientific discoveries in terms of the person(s) who were responsible for the discovery and the historical and cultural context in which the discovery was made.	Describes instances in which a major scientific or technological advance has been based on the work of persons of several races and nationalities.	Writes an essay describing how our lives would be different if the scientific contributions of a chosen individual had not been made.
4.7 To demonstrate knowledge of the relationship of science to other areas of human endeavor (e.g., art, history, literature, government)		Creates musical instruments through application of scientific knowledge and skills.	Compares the variety of artwork possible using only naturally occurring materials with what is possible using synthetic materials. Describes use of scientific knowledge and processes in crime investigation.	Describes how modern time dating techniques contribute to knowledge of earlier civilizations. Relates time and place of important advances in science and technology to prevalent conditions and contemporary events.
4.8 To demonstrate knowledge of the ways in which attitudes, thinking processes, and skills can be coupled with content knowledge to be used in personal decision making	Describes how habits of personal cleanliness contribute to good health.	Given a list of foods, identifies items that would constitute a nutritious, balanced meal. States reasons for choices.	Given manufacturers' literature and consumer research data, selects an object (e.g., bicycle, power saw, food, car) for purchase.	Uses data from scientific investigations in presenting a position on a political issue.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Association for the Advancement of Science (AAAS)
John R. Mayor, Director of Education
1515 Massachusetts Avenue, N.W.
Washington, D.C. 20005
Publication: **Science**

Association for the Education of Teachers of Science (AETS)
Richard Smith
Department of Natural Science
San Jose State University
125 S. Seventh Street
San Jose, CA 95192

California Science Teachers Association (CSTA)
Robert Rice, Executive Director
Lawrence Hall of Science
University of California
Berkeley, CA 94720

SOCIAL SCIENCES

POINT OF VIEW

The central purpose of social sciences education is to develop responsible citizens who will in turn preserve and continue to advance progress toward a just society.

In order that such responsible citizens can be developed, individuals must grow in understanding of themselves, the others with whom they live, other Americans, and others in the world. Thus, they must acquire concepts about human beings, human societies, and the processes by which learning can be continuous throughout life. Among the essential processes to be learned are critical thinking, problem solving, work-study skills, valuing, self-direction, and social participation. In part, the achievement of responsible citizenship will be shown in students' respect and understanding for themselves and others.

The development of responsible citizens begins in kindergarten and continues throughout life. The social sciences curriculum focuses on the development of effectively functioning human beings who choose to be active members of their communities and to exercise the duties, rights, and obligations of citizenship.

VIGNETTES

GOAL 1: **To develop understandings based on data, generalizations, and interdisciplinary and disciplinary concepts drawn from the various social sciences including anthropology, economics, geography, history, political science, psychology, and sociology**

LEVEL 1

Community Study

Setting: Local Community (Past-Present)

Students in a third grade class in Central City are studying the community. They invite five senior citizens who have lived in the community all their lives to meet with them and talk about the community. Mr. Hertzel, the teacher, suggests they ask Mrs. Nakagiri, Mr. Standing Elk, Ms. Garcia, Mrs. Bronowski, and Mr. Thomas. Each is well known to the children as volunteer aides in the school. Each represents a different ethnic community. Before the visitors come, the class develops a list of questions to ask their visitors:

- Where were you born?
- When did you come to live in Central City?
- What was the city like?
- What stores were there? Can you show us where they were on our map? Did you have parks? Did you have movies?
- What did you do for fun?
- What was your school like?
- What do you think has changed most since you were our age?
- What has not changed very much?

One guest is scheduled to come each week. With the guidance of the teacher, Mr. Hertzel, the class chooses the persons who will ask each question. Other students may ask follow-up questions. Another group of students takes turns tape recording each speaker. Another group greets the guests and introduces them to the class. The remaining students are divided into four groups of five; each is to listen carefully and remember the following:

Group 1 What stores, schools, parks, and other things were in Central City when _____ was young?
Group 2. What things were not in the city then?
Group 3. What has changed most?
Group 4. What has changed least?

The students listen carefully, collect their data, and with Mr. Hertzel's help make a retrieval chart.

Retrieval Chart

	Mrs. Nakagiri	Mr. Standing Elk	Ms. Garcia	Mrs. Bronowski	Mr. Thomas
What Places - Then					
What Places - Not Then					
Changed Most					
Changed Least					

The students can now generalize and respond to the following questions:

- Did each person remember the same things?
- Why might they remember different things?
- How has the city changed?
- What things have not changed very much?
- What things seem to change most?
- What things seem to change least?
- Why do things and people change?

LEVEL 2

Western Hemisphere

Settings: Brazil, Argentina, Chile, Ecuador, Colombia, Peru (1800-1979)

Mrs. James' sixth grade class has spent a year studying South America. She wants the students to review and synthesize their learning by looking once again at the cultures they studied.

She divides the class into six teams of five students each. Each team is given a culture to review: Brazil, Argentina, Chile, Ecuador, Colombia, or Peru. Each team looks at one country as of today and as of the year 1800 and collects the following data:

- Economics—resources, agriculture (crops, cattle, dairies, etc.), industries, exports, and imports
- Politics—form of government, leaders, and problems

- Social Issues—family life, religions, and education including average number of years of schooling, number of universities, and number of technical schools
- Technological Changes—equipment used on farms, machinery used in industry, scientists, and inventors

Prior work done during the year is reviewed, the public and school libraries are used, and the nearest consulates are called for Brazil and Argentina. Letters are written to the consulates in Washington D.C. for the other four countries. A professor at the city college who specializes in South American history visits the class. When the data are accumulated each committee writes a report which follows the outline and is titled: "The Changes in (e.g., Brazil) from 1800 to 1979." The students are asked to hypothesize as to why some changes seem to be bigger or more surprising than others. After listening to all the reports and discussing the changes, each committee is asked to write a conclusion to their report stating why they think things and life change and to back their reasons with the best "facts" or "data" that they have.

LEVEL 3

Urban Studies

Settings: New York City, Los Angeles, Atlanta

Students in Mr. Clelland's ninth grade urban studies class are engaged in an in-depth study of three major urban redevelopment projects: Bedford-Stuyvesant, New York City; the Bunker Hill, Los Angeles; and the Atlanta, Georgia central underground mall. The class is divided into three research groups. Each group looks at one project during three phases: pre-development, project completion, and current status. For each phase, the team studies:

- Land use patterns—proportion of industrial, commercial, residential, recreational, other
- Income level of persons living on the land
- Ethnic composition of populations using the land
- Age distribution of people using the land
- Tax income
- Zoning
- Displacement and resettlement patterns

Before beginning its study, each team is asked to state criteria for a good urban environment. The class then discusses these proposed criteria and makes a first draft of criteria to be used to determine whether the quality of life has been improved by the specific redevelopment project being studied. Two senior government teachers, the environmental studies teacher, a local city councilman, and the biological sciences teacher are asked to give information and suggestions. Individual students interview these persons and their ideas are evaluated and incorporated if the committee judges them to be of value. The data are accumulated from all available sources—books, magazines, newspapers, transcripts of radio and television programs. The data are summarized and generalizations are drawn and tested against criteria. Each final report weighs the extent to which the quality of life has been improved and at what costs to whom. A report of the investigation is prepared for the local newspaper and a presentation is made to the local Chamber of Commerce by a team of students.

LEVEL 4

World Studies

Settings: Selected Modern Nations

In expanding on the study of technology, Ms. Andrade focuses her twelfth grade senior contemporary problems course on the worldwide problems of war, poverty, ecology (overpopulation and pollution), human rights, and increased participation by citizens in governmental decision making. After preliminary investigations, these problems are divided among five in-depth research teams for further study. Each team:

- Investigates historical and contemporary aspects of the problem
- Determines to what extent modern technology exists which could be used
- Determines to what extent the problem is one a single nation can effectively bring to solution, or whether a multinational approach is needed
- Projects future dimensions of the problem when causative and ameliorative variables are analyzed
- Makes recommendations for effective solutions (technological, social strategies, political action, other)
- Plans programs for communicating findings to local civic groups through radio, television, newspapers, brochures, visual displays, and letters

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To develop understandings based on data, generalizations, and interdisciplinary and disciplinary concepts drawn from the various social sciences including anthropology, economics, geography, history, political science, psychology and sociology**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES

1.1 To understand selected examples of interdisciplinary concepts through studies of human experience

	Level 1	Level 2	Level 3	Level 4
Environment*	Analyzes how settings for work and play can be made more beautiful and functional by own efforts.	Analyzes physical and social considerations in planning environments.	Evaluates the effects of unlimited exploitation of natural resources in various regions of the United States and in developing nations.	Describes how urban growth has affected the environment.
Freedom	Identifies factors which allow for personal freedom or constrain individuals in the immediate environment.	Identifies some of the important values that may be affected by the exercise of freedom and considers the emotional, intellectual, social, cultural, legal, and political aspects of freedom.	Identifies and describes some phenomena that affect freedom (e.g., emotional factors such as self-confidence; intellectual factors such as the understanding of various alternatives; social and cultural factors such as the existence of realistic and varied alternatives; legal and political factors such as First Amendment guarantees of belief, expression, and association).	Analyzes specific problem situations to determine limitations that should be placed on the exercise of freedom and the values promoted or inhibited in each situation.
Justice	Identifies procedures for making decisions in the home, school, and community and evaluates decisions in terms of fairness or unfairness.	Evaluates issues concerning the fair correction of wrongs or injuries (e.g., situations involving wrongs or injuries suffered by students, employees, or citizens).	Distinguishes among rules and laws designed to promote fair distribution of resources, fair means of making decisions, and fair corrections of wrongs or injuries.	Explains how various institutions and groups are supposed to function so that fair distribution of resources, fair procedures for making decisions, and fair correction of wrongs or injuries can be promoted.

*The examples of concepts which are listed under objectives 1.1 and 1.2 have been selected from a more comprehensive listing in the *Social Sciences Education Framework*.

Level 1	Level 2	Level 3	Level 4
Truth			
Recognizes the importance of making accurate statements so that a positive and constructive classroom environment can be created.	Considers economics and use of resources in relation to the development of California water resources for electric power.	Reads materials written by the early Western settlers and compares the settlers' views with the views expressed in selected motion pictures depicting life during the same period.	Studies the development of a major local or national problem as reported on three or more radio and/or television networks.
OBJECTIVES			
1.2 To understand selected examples of concepts derived from the disciplines through studies of human experience			
ANTHROPOLOGY			
CULTURE			
Devises rules to resolve conflicts and meet needs in class and playground activities.	Shows respect for other students in the class who are trying to establish their own identities, values, and life-styles.	Describes the formal and informal political processes by which individuals and cultural groups effect social change.	Analyzes why it is often difficult for individuals and groups to tolerate the diverse life-styles of others.
ECONOMICS			
SCARCITY			
Practices economical use of school materials and develops an understanding that these materials are provided by tax money paid by their parents.	Analyzes use and misuse of resources in attempts to fulfill the wants of the growing population of the world.	Analyzes how the scarcity of economic resources has influenced the labor market in the United States.	Describes why resources available to human beings are scarce in relation to their needs and wants.
GEOGRAPHY			
RESOURCES			
Links items used with places where the items originated.	Identifies natural resources (e.g., minerals, water) and describes comparative uses of such resources.	Identifies and describes the use of human resources in a particular historical event.	Computes the social cost of using human and physical resources in various ways and makes choices about the allocation of capital mineral wealth.
HISTORY			
CHANGE			
Describes types and rates of change in community.	Analyzes economic, political, social, and technological changes that have occurred since the beginnings of the nation.	Describes how changing land-use patterns in the United States have affected various groups.	Explains the signficance of changes in technology for social, political, and economic systems.
POLITICAL SCIENCE			
AUTHORITY/POWER			
Demonstrates knowledge of the need for order in the classroom when certain tasks are to be performed.	Analyzes situations in which authority exists and identifies its intermediate and alternate sources (e.g., the authority of teachers which is based upon custom, tradition, law, need, and consent).	Analyzes situations to determine some values that are promoted and some that are inhibited by the exercise of authority (e.g., parents in setting an evening curfew for children).	Analyzes the scope and limits of authority within a specific situation and explains some of the values and interests involved (e.g., limits on the exercise of authority by a specific branch or agency of the U.S. government).

SOCIAL SCIENCES

Level 1	Level 2	Level 3	Level 4
PSYCHOLOGY			
NEEDS			
Describes how people meet their needs for food, clothing, shelter, love, and security.	Compares own ways of meeting needs with the ways in which others meet their needs.	Analyzes how institutions have developed to meet needs.	Evaluates experiences of contemporary institutions in meeting needs and hypothesizes about ways in which these needs may be met in the future.
SOCIOLOGY			
SOCIAL CONTROL			
Uses personal experiences to identify rules which are common to several groups and rules that are unique to a particular group.	Describes changes in interpretation and implementation of laws designed to protect certain individual rights of all citizens.	Compares socialization of youth in different ethnic/cultural groups in the United States.	Analyzes how and why members of society are controlled by social values transmitted through social institutions.
OBJECTIVES			
1.3 To use the data from which concepts have been derived and to develop and test understandings based on data			
Keeps a record of time spent in different activities and discusses alternative ways to use time.	Studies a foreign culture and compares family life with own experience.	Compares social conditions in a foreign country with conditions in the United States using information from a variety of sources (e.g., newspapers, statistical reports on employment levels and income distribution, editorial commentaries).	Studies and analyzes historical events related to the labor movement.
OBJECTIVES			
1.4 To develop valid conceptual schemes which students may employ in furthering their understandings of aspects of human experience such as culture, belief systems, justice, and representative explanations of human origins			
Participates in developing rules and procedures for classroom management.	Lists the situations where being "fair" is important, where following the "rules" is important, and where being "just" is important.	Studies and analyzes historical events in terms of concept of justice.	Studies and analyzes contemporary events using newspapers and magazines as source materials.

MULTICULTURAL

GOAL 2.0: **To enable students to develop and practice a variety of intellectual and work-study skills appropriate to the social sciences**

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
2.1 To develop and use the skills involved in critical thinking	Discriminates between fact and imagination.	States a variety of generalizations about the effects of actions of different groups on the use of land and resources in California.	Makes and tests hypotheses, uses relevant information, develops generalizations, and avoids overgeneralizations.	Extrapolates from past and present conditions and makes predictions.
2.2 To develop and use valuing skills that are useful in the processes of recognizing and clarifying problems as well as managing and resolving them	Identifies problems that occur among persons or groups, lists steps for resolving a problem, and predicts consequences of the suggestions.	Discusses problems related to the attitudes and values of classroom members and gives reasons for possible future behaviors on the basis of one's own feelings, attitudes, and values.	Identifies problems in individual and peer group relationships, develops alternative solutions, predicts the consequences of actions based on such solutions, and maintains a log of events to verify predictions.	Develops alternative solutions to problems and evaluates the consequences of the solutions.
2.3 To develop and use creative ways to solve problems	Discusses and identifies a variety of ways for sharing materials.	Participates in small-group discussions to present ideas, expands and clarifies ideas, listens to others, and comments and builds on the ideas of others.	Develops a plan for analyzing the impact of a new technology on a developing nation.	Generates proposals for the use of alternative materials and processes in an area where resources are diminishing.
2.4 To develop and use work-study skills	Identifies symbols on a simple neighborhood map.	Uses a variety of graphic resources such as encyclopedias, almanacs, graphs, and maps to obtain information about the United States.	Develops charts and graphs to illustrate changes in educational opportunities for various cultural groups in the United States.	Interprets, generalizes, and infers from data and communicates ideas and findings effectively through verbal and written presentation.
2.5 To become increasingly self-directing	Discusses and plans ways for using time wisely.	Works in groups of various sizes to plan activities and carry them through to completion.	Works in small groups to develop a plan for resolving a community problem.	Develops procedures for the investigation of a problem, develops criteria, and evaluates outcomes of the study.
CAREER 2.6 To identify needs for continuous learning in order to keep abreast of changes in social science disciplines	Relates basic skill developments to life roles within the community.	Demonstrates an understanding of the importance of successful accomplishments to a positive image of self.	Develops a tentative schedule to acquire necessary and desired special skills.	Develops a plan for acquisition of the necessary skills for a chosen life-style.

SOCIAL SCIENCES

GOAL 3.0: **To enable and encourage students to understand and respect individual and cultural differences and similarities**

MULTICULTURAL

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 1	Level 2	Level 3	Level 4
3.1 To understand and appreciate the world as a multiracial, multicultural, multilingual, and multinational phenomenon	Identifies cultural differences in the class and discusses similarities and differences in the way people satisfy basic needs.	Identifies regions on a map from which racial groups come to the United States and reports on one aspect of the original culture of these groups.	Analyzes the multicultural development of the United States (e.g., Native American, European, Mexican, African, Asian).	Lists similarities and differences in human beings and the implications of this knowledge for equalizing social, political, economic, and educational opportunities.
3.2 To understand and appreciate the United States as a multiracial, multilingual, and multicultural phenomenon	Discusses the advantages of being able to speak more than one language.	Studies one example of an ethnic/cultural group from family's background.	Analyzes the contributions of different ethnic/cultural groups to the development of religious and cultural pluralism in the United States.	Describes unique cultural contributions of different groups in the United States.
3.3 To understand and appreciate universal and/or alternative ideas about beauty, ideological beliefs, sex roles, moral standards, and value systems	Prepares food from different ethnic/cultural origins.	Analyzes similarities and differences among selected cultures.	Describes the unique and significant contributions to life in the United States made by different groups.	Analyzes the differences in legal, social, and economic rights and privileges between men and women.
3.4 To be aware of the wide diversity of occupational choices available and the ways in which individuals make these choices	Examines the variety of jobs in a complex society.	Participates in a survey of the occupational roles of parents and explains how parents selected their occupations.	Analyzes the contributions various ethnic/cultural groups have made to the economic developments in the United States.	Interviews persons with varied backgrounds about socioeconomic factors that influence career choices.
3.5 To analyze behavior and attitudes for biases against the characteristics of specific groups (e.g., sexual, racial, ethnic, economic)	Identifies similarities and differences among students.	Analyzes advertisements, television programs, and "comics" to identify cultural, social, and economic stereotypes in our society.	Analyzes socioeconomic factors which have perpetuated patterns of discrimination against various ethnic/cultural groups in the United States	Analyzes the forces that have led to legal acts and social sanctions of discrimination against specific groups.

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
MULTICULTURAL 3.6 To understand different units of human organizations: world organizations, nation-states, ethnic/racial groups, entrepreneurial and labor groups, kin groups, and families	Works cooperatively in committees planning for and accomplishing specific tasks such as collecting data and reporting to the class.	Studies the organization of societies in the past and compares to present-day social organization.	Studies the origins and purposes of labor organizations in the United States and compares to the present-day functions of the same or similar organizations.	Uses a variety of sources for information (e.g., newspapers, magazine articles, TV) about present-day social/economic/political organizations and evaluates the effectiveness of these organizations.

GOAL 4.0: To enable students to reflect on their society's values and to develop and clarify a personal set of values

SAMPLES OF LEARNER BEHAVIORS

OBJECTIVES	Level 1	Level 2	Level 3	Level 4
4.1 To become aware of personal value positions and the positions held by other individuals and groups	Listens to the thoughts of fellow students, family members, and members of the larger community in which they reside.	Examines the viewpoints of cultural and ethnic groups in California on specific issues.	Examines personal value positions on specific issues.	Clarifies personal value positions when confronted with different social problems.
4.2 To develop feelings of self-worth and confidence in personal capabilities	Participates in school and community groups.	Evaluates own performance in a social science project.	Acts to resolve problems in peer groups.	Analyzes personal strengths and weaknesses and identifies alternatives for life planning.
4.3 To develop an appreciation of and a concern for all living things	Describes own accountability for actions in family, school, or neighborhood situations.	Identifies the key elements that assist people to conserve and preserve all living things.	Demonstrates a sensitivity to similarities and differences in the feelings of other students.	Identifies value positions reflected in the actions of various groups in the world.
4.4 To see that controversies are usually related to value differences or interpretations	Describes different types of human behavior in terms of personal value systems.	Analyzes attitudes and values that influence the development of the United States.	Analyzes a political controversy in terms of antagonists' value positions.	Participates in solving current social problems.
4.5 To understand and appreciate the rights, privileges, and duties of citizenship in a democracy	Demonstrates ability to share responsibility in group work.	Demonstrates respect for rights and property of others.	Compares own feelings toward freedom and responsibility with perception of the feelings adults have.	Generalizes about goals and tactics that characterize different groups committed to social action.

SOCIAL SCIENCES

GOAL 5.0: **To enable students to participate in activities in the society as individuals and as members of groups**

	SAMPLES OF LEARNER BEHAVIORS			
OBJECTIVES	Level 1	Level 2	Level 3	Level 4
5.1 To analyze social situations, determine value issues, and prepare appropriate solutions upon which the students are willing to act	Participates in formulating an appropriate set of classroom rules.	Works cooperatively to develop a plan for resolving conflicts on the playground.	Participates in community projects designed to improve the environment.	Analyzes the performance of national leaders to determine the values underlying their behavior.
5.2 To use their knowledge and intellectual skills effectively in participating in civic and other activities	Works cooperatively to develop a plan for sharing classroom equipment.	Analyzes school-community traffic problems.	Analyzes the role of student government.	Explores the need for social services in the community.
5.3 To develop inter-personal relationship skills in social activities	Demonstrates behaviors that contribute to good interpersonal relations.	Explores a variety of roles essential for successful group functioning and performs the roles successfully in school.	Participates in setting goals for group activities and applies goals to personal behavior.	Discusses controversial public issues.
ENVIRONMENTAL 5.4 To understand how to use social processes in order to solve resource use and environmental problems	Applies rules for school and community behavior in respect to littering, resource waste, pollution, and care for animals.	Relates social activities concerned with environmental matters from the past and/or in other cultures to current American practices.	Describes the relationship of governmental regulatory agencies and political bodies to environmental protection.	Demonstrates a long-term commitment to continuing environmental awareness and a willingness to work individually and with others to solve identified problems.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

California Council for the Social Studies
2205 - 16th Street
Sacramento, CA 95818
Publication: **The Social Studies Review**

National Council for the Social Studies
1515 Wilson Boulevard, Suite 101
Arlington, VA 22209
Publication: **Social Education**

TRAFFIC SAFETY EDUCATION

POINT OF VIEW

The main purpose of traffic safety education is to develop students' understanding and observance of the system of signs and procedures that have been developed for the safe use of vehicles and protection of pedestrians. The program aims to increase students' awareness of their responsibilities in relation to traffic safety through a systematic and detailed exposure in practice and in analysis to the system for traffic safety.

At the elementary level, emphasis is placed on learning to observe the functions of signs, signals, and procedures through the practice of good safety habits. There is some indication that potential problem drivers can be identified among elementary school children. This suggests that efforts should be planned to modify the characteristics that will predispose these children to accidents.

Secondary schools are well qualified to prepare young people for use of the traffic system. As students reach legal driving age, they are prepared to function safety and efficiently as vehicle operators, passengers, pedestrians, and consumers. They also learn about ways in which they can responsibly and actively support and initiate efforts to improve system components (roadway, vehicles, and highway users) and management.

Many concepts and values that are included in other areas of the curriculum also can be developed in the traffic safety program. For example, the drinking and driving problem is part of the alcohol problem in general. The same can be said about drug use, emotions, the aging process, law and order, and other social problems. These concerns are identified in the traffic environment by poor performance and accidents.

Most students have a strong interest in learning how to drive. This interest can be used as a motivation to consider these concepts and values and to apply them as operators of vehicles and as pedestrians.

A traffic safety education program is implemented informally at levels 1 and 2. Vignettes are included for those levels as examples of the types of activities which can be used. Samples of learner behaviors are described only for levels 3 and 4 when the program is formally implemented.

VIGNETTES

GOAL 1: **To take all possible precautions to reduce risk of injury**

LEVEL 1

The teacher takes the class outside to the sidewalk adjacent to the school. One at a time, the children walk to the edge of the street and begin to look for moving vehicles. The student points toward a moving vehicle, follows the vehicle with the arm, and states to the teacher when the vehicle has passed the student's body and—if there is no other approaching vehicle—that it is safe to cross the street.

Students may be assigned in pairs to perform this activity, informing each other of approaching vehicles.

Students who have difficulty with this activity should repeat it until they are successful.

LEVEL 2

The following activity is a game which can be used to develop awareness about the hazards that bicycle riders might encounter and the procedures they can use either to avoid or respond to hazards.

A series of slides is shown. These illustrate various traffic situations and hazards which a bicycle rider might encounter. Each slide is given a value of from one to three points, depending on how obvious the hazard is. The class is divided into two teams. As each slide is shown, the teams take turns identifying the hazards. If a team member identifies the hazard, the points are added to the score of that team. If not, the other team is given a chance to identify the hazard. After students identify the hazards, they describe ways in which the hazards can be avoided or reduced.

LEVEL 3

Dyne-O-Myte is a game based on facts about drugs other than alcohol. Cards are used which have questions related to facts about drugs printed on them. Four teams are selected. The team that reaches the "O" in the center of the Dyne-O-Myte diagram first wins the game. The teacher draws a diagram on the chalkboard as follows:

D
Y
N
E
•
DYNE • O • MYTE
•
M
Y
T
E

Team members take turns drawing cards. The person drawing the card reads and answers the question on it. If the answer is correct, the scorekeeper crosses off the outermost letter in the diagram. If the answer is incorrect, a member of the next team has a chance to answer the question. The game can be played several times in a single class period.

This game is one in a series of learning activities taken from *Taking Risks*, a book being prepared for publication by the Department of Education. It is a series of activities and materials for teaching about alcohol, other drugs, and traffic safety. The publication will be released in 1979.

LEVEL 4

In this learning activity the student driver describes those elements in the traffic environment which could product a conflict. In each case, the student explains what is taking place, including the steps being taken to prevent a collision.

This learning activity gives the teacher the opportunity to evaluate the development of perceptual skills through the spoken word.

GOALS, OBJECTIVES, AND SAMPLES OF LEARNER BEHAVIORS FOR PROGRAM PLANNING

GOAL 1.0: **To take all possible precautions to reduce risk of injury**

OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 3	Level 4
1.1 To use skills for pre-entry, participation, and exiting in highway traffic	**Bicycle Exit** Indicates intention to leave the highway transportation system and receives information which indicates response from other drivers.	**Trip Planning** Chooses a route to a destination which offers the greatest possibility of arriving safely.
1.2 To assess the risk associated with using the highway transportation system while under the influence of alcohol or other drugs	Identifies and appraises motivations that prompt young people to drink and develops personal guidelines for behavior that will minimize the risks associated with drinking and driving.	Formulates a set of personal guidelines for avoiding harmful highway consequences from drug misuse.

GOAL 2.0: **To develop awareness of the importance of the highway transportation system and participate in activities which influence the maintenance and improvement of the system**

	OBJECTIVES	SAMPLES OF LEARNER BEHAVIORS Level 3	Level 4
ENVIRONMENTAL	2.1 To be aware of the use of natural resources throughout the highway transportation system	Identifies natural resources used in the highway transportation system and explains the need for conservation.	Describes appropriate actions to conserve natural resources.
ENVIRONMENTAL	2.2 To be aware of the environmental effects of the highway transportation system	Identifies elements in the highway transportation system which are harmful to the environment.	Describes ways in which elements in the highway transportation system are harmful to the environment.
ENVIRONMENTAL	2.3 To be aware of alternative means of transportation which reduce negative effects of the highway transportation system on the environment and natural resources		Identifies the available options within the transportation system as they relate to the needs of the individual and society.
CONSUMER	2.4 To identify organizations and agencies related to the highway transportation system	Describes products manufactured for the protection of passengers.	Identifies organizations which provide information related to the safety of highway users.
CONSUMER	2.5 To recognize conditions which call for changes in the highway transportation system		Identifies problems in the highway transportation system which affect the safety of highway users.
CONSUMER	2.6 To initiate and support efforts to improve the highway transportation system		Identifies the role of a citizen in initiating and supporting efforts to improve the highway transportation system.

	OBJECTIVES	Level 3	Level 4
CAREER	2.7 To be aware of career opportunities available in the highway transportation system		Creates a list of ten unrelated job opportunities available in the highway transportation system.

PROFESSIONAL ASSOCIATIONS AND THEIR PUBLICATIONS

American Driver and Traffic Safety Education Association (ADTSEA)
1201 - 16th Street, N.W.
Washington, D.C. 20036

Publication: **Journal of Traffic Safety Education**
P.O. Box 253
Los Alamitos, CA 90720

California Association for Safety Education (CASE)
P.O. Box 4077
Foster City, CA 94404

CALIFORNIA ASSESSMENT PROGRAM

The California Assessment Program (CAP) is a statewide testing program which provides information to the state legislature, the public, and school personnel about how well students in California's public schools are learning the basic skills. The California Assessment Program was first fully implemented in 1974-75. It is unique in the nation in design, development, and procedures.

The principal features of the program are:

- **CAP provides information only about groups of students and not about individuals.** CAP results are aggregated and reported at the school, district, and state levels.
- **CAP employs a testing strategy known as matrix sampling.** In matrix sampling a long test is developed and subdivided into many (10 to 20) equally difficult forms. Each student completes only a portion of the test. Matrix sampling allows for both an increase in content coverage and a reduction in testing time and effort for teachers and students.
- **The basic skills achievement tests used by CAP are tailored especially to the curriculum taught in California's public schools.** The objectives of the reading, mathematics, and written language tests are based upon the state-adopted curriculum frameworks in each of these areas. Committees of curriculum specialists representing a cross section of institutions and regions throughout California assisted in compiling the test objectives for reading, language, and math in 1972-73. The committees selected items which were judged to be sound and accurate measures of the various objectives.
- **The test booklets and scoring are provided without charge to school districts.**

The California Assessment Program has evolved in many ways since it was first implemented in 1974-75. In 1979-80, reading, math, and written language will be assessed at grades 3, 6, and 12 according to the schedule:

September 1979	December 1979	April 1980	April-May 1980
Entry Level	Grade	Grade	Grade
Test	12	6	3

DESCRIPTION OF BASIC SKILLS AREAS
Grades 3, 6, and 12

These three matrix sampling tests measure achievement in four content areas: reading, written language, spelling, and mathematics. The skill area breakdown for each of these areas is as follows:

Reading

Word identification—phonetic and structural analysis, vocabulary, literal and interpretive/critical comprehension

Language

Word forms, language choices, sentence recognition and manipulation, paragraphs, capitalization, and punctuation

Spelling

Predictables, demons, word formation, and homophones

Mathematics

Number and numeration, number theory and properties, whole number computation and application, fraction computation and application, decimal computation and application, algebraic computation and application, geometric facts and application, probability and statistical computation and application

USE OF CAP RESULTS

School staffs are encouraged to examine the information that is made available through the California Assessment Program and to use it in assessing needs and in planning for instructional programs. Following are some of the steps that can be used in this process.

- Prior to testing, staffs review the test content specifications and identify important skill areas.
- Using the information from this analysis, staffs review the curriculum for the specific skill areas and make judgments about the relevance of curriculum content to the test specifications.
- Immediately prior to the testing period, staffs review procedures for test administration to assure optimal conditions for student performance.
- When the reports of the results of testing arrive, staffs use the *Interpretive Supplement* (see publications) to analyze the results for a particular school site.
- Planning groups combine the information from the testing results with other sources of information such as opinion surveys, staffing patterns, and school population to assess the needs of the school site in program planning.
- Planning groups use this aggregated information about school site needs in setting goals and objectives and in developing curriculum activities.

CALIFORNIA ASSESSMENT PROGRAM PUBLICATIONS*

Interpretive Supplement — This publication is sent with each school report. It contains a description of all information printed on the report and other information that is useful in interpreting the results such as percentile rank tables and illustrative items.

Filmstrips — Two filmstrips in one package give an overview of the California Assessment Program and describe how to use the results of the school report.

Student Achievement in California Schools - 1977-78 (published annually) — This publication describes the statewide test results for each content area and for each grade. Results are presented in detail, pointing out specific strengths and weaknesses in achievement for the statewide student population. Results are also presented for a variety of subgroups. The final section of the report presents the results for California relative to national pupil norms.

Test Content Specifications for California State Reading Test and Survey Skills — This set of three documents—one each for reading, mathematics, and written expression and spelling—is the culmination of months of research into what was commonly taught in California public schools. They form the framework from which the *Survey of Basic Skills: Grade 6* was developed.

---

*These publications are available from Publications Sales, California State Department of Education, P.O. Box 271, Sacramento, CA 95802.

CURRICULUM FRAMEWORKS

Unless otherwise noted, the major sources of goals and content for the curricular areas in this *Course of Study* were the California State Frameworks.

The California State Board of Education has adopted Frameworks for California public schools, grades kindergarten through 12, in the following curricular areas. Copies of these Frameworks may be obtained by writing to California State Department of Education, P.O. Box 271, Sacramento, CA 95802.

Art Education Framework (1971)
Bilingual-Bicultural Education and English-as-a-Second-Language Education: A Framework for Elementary and Secondary Schools (1979)
Drama/Theatre Framework for California Public Schools (1974)
English Language Framework for California Public Schools (1976)
Foreign Language Framework for California Public Schools (1979)
Health Instruction Framework for California Public Schools (1979)
A Handbook for Curriculum Frameworks (1974, rev. 1976)
Mathematics Framework for California Public Schools (1975)
Mathematics Scope and Sequence Charts (set of four) (1975)
Music Framework for California Public Schools (1975)
Physical Education Framework for California Public Schools (1973) - out of print, revision in progress
Framework in Reading for Elementary and Secondary Schools in California (1973)
Science Framework for California Public Schools (1978)
Social Sciences Framework for California Public Schools (1975)