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An Analysis and Evaluation of Three Diverse Resource Unit Formats for Purposes of Resource Unit Development in the Cupertino School District

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AN ANALYSIS AND EVALUATION OF THREE DIVERSE
RESOURCE UNIT FORMATS FOR PURPOSES OF
RESOURCE UNIT DEVELOPMENT IN THE
CUPERTINO SCHOOL DISTRICT

A Thesis
Presented to
the Graduate Faculty
Central Washington College of Education

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Dorothy Loleta Garvin
August, 1960

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CHAPTER I

INTRODUCTION

I. THE PROBLEM

Background

Twenty-million people are expected to become Californians by 1975. The state, destined to become the nation's most populous, will be the industrial giant of the Pacific and one of the world's great playgrounds. Freeways four to eight lanes wide will tie together the entire area; it is expected that the abundance of land will attract thousands of new businesses during the next twenty years. The completion of the Feather River Project will provide irrigation for forty-thousand additional farms. Almost eighty per cent of this growth will be found in the state's three large metropolitan areas, Los Angeles, San Francisco, and San Diego. Despite this huge influx, the new density of 127 persons per square mile will still be far below the present 642 per square mile in such eastern states as New Jersey. The land is large (14:7).

California's curriculum committee had designated the study of Modern California as part of the fourth grade social studies program. A half year study of Early California precedes the Modern California unit. The state has

provided fourth grade teachers with an adequate text and a general unit outline. Many new schools have been and are being built as a result of the tremendous growth of the state. This accelerated building program has prompted the hiring of many teachers unfamiliar with the San Francisco area.

Importance of the Study

The curriculum consultants of the Cupertino School District felt there was a definite need for the development of a resource unit on Modern California (12). Some statements supporting such a need, made by the District's fourth grade teachers (as revealed in preliminary questionnaire), were as follows:

1. I am quite interested in this unit. I am glad someone is working on a plan for it. Do you need anyone else on the committee? I have taught Modern California three times--and never the same twice. As I plan my fourth time teaching it, I'd love to help work out a unit of study.

2. Our county guide is out-dated. It was published in 1954, nearly six years ago.

3. I am new to the district this year and haven't taught the Modern California unit before. A resource unit would give me a good start.

Statement of the Problem

The purpose of this project was (1) to select three diverse resource unit formats in use throughout the United

States, (2) to evaluate these three unit formats, and (3) to recommend to the Cupertino School District one of these formats to be used in writing a resource unit on Modern California.

II. DEFINITIONS OF TERMS USED

Resource Unit

In this study the term shall be interpreted as a collection of suggested teaching materials and activities "organized around given topics. . . .They may be organized around entire topics. . .or around parts of a topic" (21:4-12).

Format

This is the orderly arrangement of material in a resource unit (4:12).

III. PROCEDURES

The procedures for gathering the material included not only the usual library research but also original research. Wherever possible, districts using the three evaluated formats were personally interviewed. Since many of the districts using these formats could not be reached personally, letters were used to obtain information.

In order to choose one resource unit format in writing a Modern California unit, the formats were evaluated by fourth grade teachers of the Cupertino School District. Original research was necessary in determining an evaluation form to be used in evaluating the formats.

The writer decided that the clearest way to display the relative weaknesses and strengths of the evaluated formats was by visual graphs and graph explanations.

CHAPTER II

REVIEW OF THE LITERATURE

I. THE RESOURCE UNIT

Definition of the Resource Unit

In the preparation and compiling of material for this study, a knowledge of resource unit context was necessary.

As its name suggests, the resource unit is a written document containing a collection of ideas on materials and activities which a teacher uses as a resource in planning and developing a unit of work with her students. As defined by Fitzgerald:

The Resource Unit is a type of comprehensive outline or brief by use of which different groups may be motivated to achieve goals of understanding by their own initiative, planning and study of resources and materials of their own choosing (8:283).

Bristow adds that it is:

. . . a type of guide with suggestions--concerning motivation, activities, materials and appraisal--which may be used selectively. The teacher and the pupils by using the guide to a wealth of materials and resources in a broad area are free in their own way to propose, plan, study and evaluate to suit their needs (4:860).

And Applegate writes:

The resource unit heightens rather than stifles creativity, it directs rather than patterns, it guides rather than dictates, it enriches rather than detracts (1:38).

The resource unit is not designed to serve as a ready teaching unit and shouldn't be used for this purpose (5:7). Resource units provide a reservoir of ideas and activities which may lend invaluable assistance when used as a guide to the teacher preplanning a unit in a closely related area (3:251).

Strickland says:

There is no single pattern for a unit of experience. It can be carried out in a variety of ways depending on the teacher's interests, her resources, the needs and interests of the children, and the course of study requirements (22:1).

Once defined, the resource unit can be studied with clearer understanding.

Selecting the Topic

The first step in the development of a resource unit is to identify the broad area of study. The social studies curriculum guides, courses of study, modern textbooks, and resource units provide invaluable sources from which to choose.

Since there is little to be gained by haphazard choice of units, careful consideration should be given to the needs, interests and abilities of children before a unit is selected for study on any level. The five objectives to follow, according to Ryser, in choosing a unit of work are:

1. Is the majority of the class interested in this topic?

2. Can the topic in question be correlated with the three r's?

3. Does this study stimulate creative ability?

4. Does this unit provoke thought, discussion, research and reasoning?

5. Will the study of this subject lead into another unit (19:224-230) ?

The following have also been offered as characteristics of desirable units: (1) realness of purpose to children; (2) contribution to a balanced curriculum; (3) comprehensibility; (4) continuity in development of children; (5) significant phase of living or learning; (6) a variety of experiences and activities; (7) authenticity of materials and data; and (8) teacher and pupil cooperation in control. The unit is only selected if it will offer the best educational study and experience for a child at that level.

Stating the Problem

In organizing the resource unit, the topic or title should be stated in problem form. A title so stated provides for more possible answers--rather than just a "yes" or "no." The title stated as a problem opens new areas for learning through study, research, and action (10:11).

Importance of the Unit

A brief paragraph preceding the actual unit develop-

ment should state the relationship of the topic or problem to the total school program. The paragraph should point out why this particular area or topic is important for children to study at a particular stage in their development. This paragraph should help the teacher to better define to her students why the topic is important in their education (10:12).

Formulating the Objectives

The objectives as referred to here are the purposes, outcomes, aims, or goals of the unit (11:371). They help the teacher to further define the reasons for the study to the children.

The objectives of a resource unit are fairly comprehensive, with more possibilities listed than will actually be used by the teacher and students in the class (9:169). Objectives are often identified under three headings as follows:

- A. Direct knowledge or understandings
 - 1. Information pertinent to the problem
 - 2. Problems to be solved
 - 3. Generalizations to be developed (10:12; 15:56-57).
- B. Indirect knowledge or attitudes and appreciations

These objectives would deal with the individual's attitudes toward other individuals and groups of people or with his emotional attitude toward the community and its problems. The words "attitude" or "appreciation" will usually appear in stated objectives in this category (10:13).

C. Skills objectives

1. Fundamental skills, which include ability to read specialized and general materials, interpret graphs, diagrams, charts, and get information from pictures; skills in the use of tables of contents, indices, bibliographies, and other information gathering abilities.
2. Skills in research, which involve the ability to distinguish between fact and opinion in oral and written statements and in turn affect skill in critical thinking, ability to interpret data, and skill in forming conclusions and generalizations.
3. Expression skills include ability to speak and write effectively and creative or artistic expression.
4. Includes such skills as working effectively in groups, skill in successful participation

in organizations, and the ability to find appropriate action to harmonize with conclusions drawn (10:13).

Content of the Unit

This section is usually completed in outline form (9:168). It provides a general over-view of the problems and division into subtopics. Some writers prefer a straight outline of topics; others use lists of questions under appropriate headings.

Sources of Information

This is one of the most valuable sections of the resource unit to the teachers. Even the best educated teachers cannot keep pace with the new information on the variety of materials as they become available. The unit should have lists of books appropriate for teachers and lists appropriate for students (9:169). It also includes articles from periodical literature, sound films, film-strips, and any other pertinent aids, not only for his own information, but for possible use by his students.

Learning Activities

This section is also most useful to teachers. They are seldom able to keep up with the wide range of possible activities that may be used effectively in working with

children and youth. Usually teachers divide activities into four categories:

1. Initiatory
2. Assimilating or developmental
3. Culminating or concluding
4. Continuing activities (2:63; 10:169)

The purpose of the activity, the children's activities, and the materials and equipment used should appear in the resource unit. The information gained by the children should be clearly and honestly set forth. Suitable bibliographies for both teacher and children are an extremely valuable part of the record (10:14). The selection of resource materials and the planning of activities for boys and girls in the classroom, an important dimension of a teacher's work, gives further purpose to studying boys and girls (2:63).

Evaluation

Evaluation should be determined in terms of the growth that has taken place in pupils. Techniques of evaluation in resource units usually deal with use of rating scales, observational techniques, paper and pencil tests, and anecdotal records. Evaluation is the process by which the achievements of the expected outcomes of the unit are observed and recorded (12:17).

II. SUMMARY

In conclusion, the basic criteria for developing a resource unit should include:

1. Selecting the topic
2. Stating the problem
3. Stating the importance of the unit
4. Forming objectives
5. Developing content
6. Developing activities
7. Developing evaluation procedures
8. Developing bibliography (21:6-9)

Once the basic ingredients of the resource unit have been developed, the next step in the preparation of the unit is the systematic organization of the material (4:12).

CHAPTER III

RESOURCE UNIT FORMATS

I. SELECTING THE RESOURCE UNIT FORMATS

Applying the Criteria

Resource units frequently are written for teachers by curriculum supervisors and consultants, but increasingly they are being prepared by committees of teachers freed from their regular responsibilities to prepare them. Often they are prepared in curriculum workshops. In any case, they almost always include much more material than can be covered by any one class or one teacher. Frequently some of the suggestions do not fit certain communities. A resource unit is designed to suggest a wide range of activities, materials, teaching techniques, themes, motivational and interest-arousing situations, significant facts, and valuable skills from which teachers may gain assistance in selecting units and activities and giving them direction (4:8).

Various resource units were examined with the following principles and qualifications in mind:

1. The resource units should meet the criteria as discussed in Chapter II.

2. The resource units should be diverse in their outline forms for purposes of evaluation.

Choosing the Formats

In order to evaluate for purposes of comparison, diversity in form was the next consideration.

Resource units in use throughout the United States were carefully examined by the writer. Teachers in the Cupertino School District were already familiar with the Santa Clara County Social Studies Guide; on the basis of familiarity and previous use, it was decided to use this guide's form as one of the formats to be evaluated.

Another format, proposed by Dr. Edgar W. Draper of the University of Washington, was chosen on the basis of recommendation (20). Careful study by Dr. Draper displayed convincing statements supporting his format (7). Recommendations by college instructors as to the worth of the format also supported the election of this resource unit format.

The next format chosen was a composite form, made up of formats used in Denver, Colorado; Kalamazoo, Michigan; and San Mateo, California. The composite format eventually contained three columns; objectives, content and materials. By including this form, reactions to the three-column format approach could be obtained. Separation of the

objectives from the content was also possible by including the composite format as one of the forms to be used in this study.

The Three Chosen Formats

The three formats chosen for this study were designated as follows: (1) the composite format, made up from the Denver, Colorado; Kalamazoo, Michigan; and San Mateo, California, resource units; this unit will be referred to hereafter as the "C" format; (2) the Santa Clara County Social Studies Guide form, designated as the "S" format; and (3) the format advocated by Dr. Edgar W. Draper of the University of Washington, referred to as the "T" format.

The "C" Format

Origin of the "C" format. In obtaining information pertaining to this format it was necessary to contact the districts involved by letter. Three questions were asked: (1) Why did you decide to use this particular format? (2) What sources or means did you use in the choosing of this format? and (3) What other information could you give pertaining to this format?

The comments received in answer to (1) were as follows:

Denver Public Schools:

The format for our social studies guide was designed by the committee elected to plan the program, kindergarten through twelfth grade (17).

Kalamazoo Public Schools:

Because the faculty committees working in this project thought it was a most useful type (16).

San Mateo County School District:

It was decided to use the column approach in the writing of our resource unit (18).

Comments regarding the (2) methods involved in choosing the formats, were as follows:

Denver Public Schools:

Guides published by various systems over the country were examined and the committee combined features that were liked from several guides. A unit was developed in three different ways, duplicated, and sent to all committee members to discuss with teachers in their buildings. The format that was chosen finally resulted (17).

Kalamazoo Public Schools:

A variety of other resource units and guides were studied (16).

San Mateo County School District:

A curriculum committee composed of county teachers, administrators, and lay personnel was assigned the task of writing our resource unit. They examined various types of resource unit formats and eventually chose a form best suiting the needs of the county's teachers.

The finished unit was then sent to all of the fourth grade teachers in the San Mateo County. The unit was then tried out for a year, evaluated by the use of a questionnaire, and then rewritten complying

as closely as possible to the suggestions as brought out in the evaluating questionnaire (18).

Comments regarding (3) other information and techniques involved, were as follows:

Denver Public Schools:

It seemed important to have a loose-leaf volume so that it would be easy to add or substitute new material as needed (17).

Kalamazoo Public Schools:

We experimented for two or three weeks with various types of formats before we settled on the present one (16).

San Mateo County School District:

Once the need of the teachers is resolved, county coordination of the activity works best. Committees composed of teachers, administrators and lay personnel have proven to be advantageous in the planning of resource units (18).

In conclusion, it can be stated that no one district planned and prepared their resource unit the same way.

Various methods in the evaluating of resource unit forms should also be noted. And finally, the writer used many of the techniques outlined by these districts in choosing the three evaluated formats in this study.

Physical description of the "C" format. The "C" format was chosen partially because of its wide geographical usage. As has already been stated, this format was actually a composite of three formats. The Column headings

of the three forms were combined and an entirely new form evolved. "Needs," "Content," and "Activities" were designated as the column headings. The "Activities" column was further divided into "References" and "Visual Aids."

The needs or objectives were stated in the form of questions. The content section was located in the center of the format with the needs column on the left and the activities section on the right. The content was organized according to the numerical sequence of the needs. The concepts and learnings in the content section were correlated with the materials to be covered in the needs section.

The activities column was located next to the content. References and visual aids were conveniently grouped so as to provide easy correlation with the content.

Each need was separately considered in the content and activities columns. A clear division between each need was observed in all three columns. This was accomplished by extra spacing and enumeration.

The "S" Format

Origin of the "S" format. The Santa Clara County Schools were contacted personally and the following information was compiled regarding the "S" format (13).

An outline form was used in the organization of the

guide's material. Two criteria were used as guide lines in the preparation of the resource unit. These were: (1) keep the material brief, and (2) all information should be "to the point."

Under the direction of the County Social Studies coordinator, Dr. Lola Fay Gordon, a committee of county teachers was organized. The main question facing this committee was: "What would be the best way to present this material?"

Physical description of the "S" format. The "S" format was organized in outline form. Two main sections were designated as the "Problems" and "Activities." Again the problems or objectives were stated in question form. All problems to be considered in the unit were grouped together in this one section. The corresponding activities section was located on a separate page from the problem. The brief statement of the problem was underlined and placed at the top of the corresponding activity section.

The suggested activities for each problem was then listed in a logical usage sequence.

A third section including suggested visual aids was located after the activities group. All films were listed together in no particular order.

The "S" format, as has already been discussed in Chapter II, was set up in a brief, to the point, outline form. The opinions and preferences of the evaluators regarding the competence and ease of handling resource unit formats could be compared.

The "T" Format

Origin of the "T" format. Information regarding the "T" format was supplied by Dr. Edgar W. Draper of the University of Washington in a written communication (17:1-2).

In response to why this format was developed and how it was developed, he replied:

Studies in the development and utilization of resource units at the University of Washington between 1943 and 1952 emphasized the importance of the structural form known as the "T." It appeared to have great functional value in the organization of resource units for the upper elementary and the secondary levels. The "T," as an aspect of the resource unit, was also studied experimentally by teachers in the public schools who were registered in workshops and seminars in the College of Education at the University of Washington.

The "T" structure has been found effective in promoting the appreciation of teachers of the fact that the learning experiences of children should be clearly related to the materials and resources with which they work and play. Procedures or methods are concerned with stimulating and initiating active participation on the part of the youngsters, and are included in the column with materials (17:2).

In conclusion, Dr. Draper stated:

There is no one commonly accepted format for resource units which will meet the needs of all teachers. Practices in various school systems indicated wide divergencies in the organization of units of work. The following headings and subheadings appear to be favored, but of course not all of them are used in resource units in any one school system: title page; overview; objectives; learning experiences; materials and resources, with suggested procedures; and plans for the evaluation of pupil growth and development at a particular grade level and in the area covered by the resource unit. Resource units in grades above the primary level should be organized so that the proposed learning experiences of pupils and the suggested materials, resources, and teaching procedures are listed in parallel columns (7:2).

Physical description of the "T" format. The "T" format was arranged as a double column form. At the top of the "T," the problem to be considered was stated in a brief objective form. The "Learnings," located on the left side of the "T," were stated in question form. The "Materials" and "Procedures" were located on the right side of the "T." The "Materials and Procedures" column was further divided into a section on "Read," "Discuss," and "Do." The "Discuss" section included concepts covered in the content section of the "C" format. The briefness of the "Discuss" section did not permit a lengthy elaboration in the "T" format. Each problem considered was grouped together with the problem to facilitate ease of handling.

Examples of the three formats are contained in the appendices. Bibliographical entries precede the formats denoting reference sources.

II. THE EVALUATION FORM

In the preparation of this study it was decided to use the method outlined in the Denver communication. That is, to rewrite material on the Geography of Modern California in three different forms. One form is outlined in the "C" format (Appendix A, page 54), the second is outlined in the "S" format (Appendix B, page 81), and the third is outlined in the "T" format (Appendix C, page 99). The next step was to prepare an evaluation form.

Possibly the greatest handicap encountered by the writer in this study was the preparation of an evaluation form. This was true due to the absence of material on resource unit formats, more specifically, an absence of material dealing with the evaluation of Resource Unit Formats. Thus, an original evaluation form needed to be prepared.

It was decided to divide the form into three sections. These sections were (1) clarity, (2) organization, and (3) over-all considerations. (Refer to Appendix D, page 126).

The section on clarity would concern itself with the objectives and content.

The second section on organization would concern itself with the correlation of learnings with activities, the placement of the objectives, the convenient placement of the resources in the three formats, and the self-explanation of the format column headings.

The last section on over-all considerations contained one question: Did the format provide for a clear picture of the material to be covered?

The evaluators were also asked to elaborate on any weaknesses found in the three sections. Comments pertaining to weaknesses and possible solutions to these weaknesses were thus solicited from the evaluators. These comments are so stated in the Chapter on graph evaluations.

The last question on the evaluation form pertained to the selection of one of these formats to be used in the writing of a Resource Unit on Modern California.

The items to be compared in the three formats were decided upon after studying previously stated material and the actual comparison of the three formats by the writer.

Careful consideration and preparation of these items was necessary so as not to bias the evaluations of the three formats in any way.

CHAPTER IV

EVALUATION OF THE THREE RESOURCE FORMATS

I. ARRANGING FOR THE EVALUATION MEETING

Meeting with the District Consultant

Early in February, 1960, an informal meeting was arranged with one of the District Curriculum Consultants, Mrs. Janet Goss. The purpose of this meeting was to plan details for the evaluation meeting to be held later in the month. The writer's study was reviewed and the district objectives were discussed. It was decided to use twelve fourth grade teachers from the district to evaluate the weaknesses and strengths of the three resource unit formats. Mrs. Goss stated that she would like to contact the twelve evaluators herself, thinking that these twelve hand-picked evaluators would be the nucleus of a future District Curriculum Committee dealing with the writing of a resource unit on Modern California. Arrangements were also made at this time for the use of the District Board Room for the evaluation meeting. District secretaries were assigned the tasks of typing the three complete units on ditto masters.

Re-establishing the Need

The cooperation the writer enjoyed from the consultant staff further showed the need and interest of the District in the writing of a Resource Unit on Modern California.

II. EVALUATION MEETING

Pre-organization

On February 25, 1960, at 3:45 P.M. the evaluation meeting was held in the Cupertino School District Board Room. The writer arrived approximately thirty minutes before the start of the meeting to arrange the physical environment of the meeting area. As twelve teacher evaluators and three consultants were to be present at the meeting, thought needed to be given to an organized seating arrangement. Two seating arrangements were necessary for the evaluation.

The first seating arrangement consisted of the formal placement of two rows of chairs, six in a row, to be used for the orientation section of the meeting. The second arrangement consisted of three large size work tables, four chairs placed at each table, for the evaluation section of the meeting. Signs in the center of each table distinguished the three evaluator groups.

An outline of the three resource unit formats was drawn on a portable four foot by six foot blackboard in preparation for the final evaluation question. The blackboard was then placed in an inconspicuous position to be used at the termination of the meeting.

The speaker's table was arranged in such a manner so as to maintain control over the evaluators in either of the seating arrangements. Both the evaluation sheets and the format were counted and stacked on the speaker's table. In order to keep the material in good order, one-half by four inch masking tape signs were used as labels on the table top. This pre-organizing of the evaluation materials enabled the speaker to carry on a well-organized orientation meeting, uninterrupted by misplaced materials.

Orientation Meeting

As the evaluators arrived they were directed to sit in the formal arrangement planned for the orientation section of the meeting. By 3:55 P.M. all evaluators were present and the meeting was ready to begin.

In order to keep a formal atmosphere, the speaker immediately read a previously prepared statement of the purposes of the meeting:

It is the purpose of this meeting to give you, as committee members, an idea of the various methods that can be used in writing a resource unit. The material presented is but the embryo of what could be a much larger resource unit on Modern California.

It is the direct purpose of this meeting to evaluate the physical arrangement of this material and to come to a conclusion as to which format or combination of formats would best suit the purposes of you, the Curriculum Committee. It should be brought to your attention that the same amount of material appears in each format, but owing to physical arrangement of the formats, differences in length resulted.

Before explaining the evaluation materials, the speaker reviewed the methods necessary for an unbiased, validated study. The speaker stressed (1) that there should be no sharing of opinions during the evaluation meeting and (2) any written statements made by the evaluators on the evaluation sheets should be as objective as possible.

The speaker next outlined the evaluation procedures. The procedures included: (1) Seating the group at the three work tables, (2) handing out and discussing the evaluation sheet, (3) allowing time for each group to look over the three formats, and (4) beginning the actual written evaluation of the formats.

Time was allowed at this point for questions by the evaluators and clarification of any points. The evaluators were then asked to seat themselves in groups of four at the three evaluation tables.

Evaluation of the Three Formats

Evaluation sheets were distributed. All evaluators were asked to read the sheets silently while the speaker orally outlined each of the general evaluation areas. The method of marking (+) denotes strength and (-) denotes weakness was explained. The speaker also stated that in order to make the study more meaningful, the evaluators were asked on the second page of the evaluation sheet to elaborate on any of the weaknesses found in the three formats. After all points were clarified, the evaluating groups were asked to turn the sheets over and lay them to one side.

The speaker next explained that the three formats would be distributed, one type of format for each evaluator group. Each group would have five minutes to look over the format they held. After that time the groups would exchange formats until all three groups had briefly scanned the three formats. The evaluators were encouraged to take any notes they wished.

The formats were once again distributed among the three groups with instructions to (1) turn the evaluation sheets over, (2) label in the space provided the letter of the format they were evaluating, (3) remember that approximately eight to ten minutes would be allowed to evaluate, and (4) to begin to evaluate.

At the end of each eight to ten minutes period, formats were exchanged among tables. Completed evaluation sheets were collected and new ones given in their place until the three evaluation groups had evaluated the three formats.

At this time the previously prepared structure outlined on the portable blackboard was revealed, and a final evaluation sheet was handed to each group. The outlines were reviewed orally and instructions were given for the evaluators to answer the evaluation question with a letter or letters of the formats just evaluated. The formal evaluation meeting was culminated with the serving of refreshments.

"C" Format Passed Out at District Meeting

From the evaluation on February 25, one format was chosen by the groups as the most useful. This format and material was recopied by the District and distributed to the fourth grade teachers at a grade level meeting on March 22.

CHAPTER V

RESULTS OF EVALUATION

I. STRENGTHS AND WEAKNESSES OF THE THREE FORMATS

In order to compare the relative strengths and weaknesses of the three formats, graphs were used to present the opinions of the twelve evaluators.

Figure 1. This graph shows the numerical evaluations comparing the clarity of the objectives in the three formats. Weaknesses were not noted in the "C" and "T" formats in this area; however, two of the twelve evaluators felt the "S" format was weak in this category.

Those noting weaknesses in the "S" format felt that the objectives were hard to follow and poorly organized. (See Figure 1).


"C" Format		12
"S" Format		10
"T" Format		12

FIGURE 1

NUMERICAL EVALUATIONS COMPARING THE CLARITY
OF THE OBJECTIVES IN THE THREE FORMATS
(BASED ON DATA FROM DISTRICT FORMAT
EVALUATION, February 25, 1960)¹

¹In this and the following figures, black denotes strength and white denotes weakness.

Figure 2. This graph shows the numerical evaluations comparing the clearness of the relation of the content to the objectives in the three formats. Weaknesses were noted in the "T" and "S" formats.

The following reasons contributed to these weaknesses: (1) the content material was too generally stated, (2) there was no definite division between content and objectives, and (3) the format did not provide for a close correlation between the content and the objectives.

(See Figure 2).

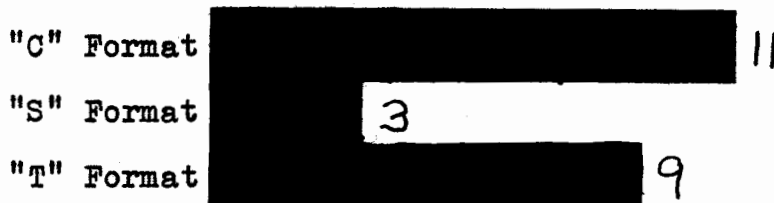


FIGURE 2

NUMERICAL EVALUATIONS COMPARING THE CLEARNESS
OF THE RELATION OF THE CONTENT TO THE
OBJECTIVES IN THE THREE FORMATS (BASED
ON DATA FROM DISTRICT FORMAT EVALUATION
February 25, 1960)

Figure 3. These graphs show the numerical evaluations comparing the clear statement of the content in the three formats.

Weaknesses were not noted in the "C" format; however, nine of the twelve evaluating the "S" format felt it was weak in this area, and two of the twelve evaluating felt that the "T" format was weak in this area.

Those noting weaknesses in the "S" format felt that the outline form was difficult to interpret, and that the outline form did not permit the inclusion of more specific content material.

Those noting weaknesses in the "T" format felt that it lacked comprehension. This format did not always provide for a clear-cut division of the content from the objectives. (See Figure 3).

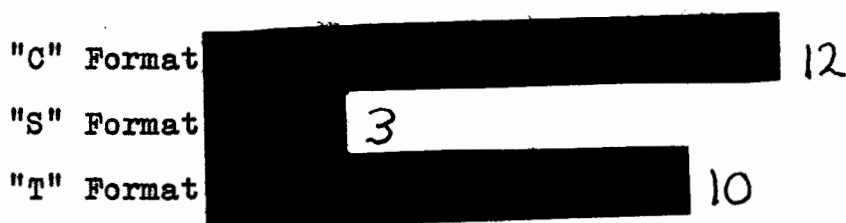


FIGURE 3

NUMERICAL EVALUATIONS COMPARING THE CLEAR STATEMENT
OF THE CONTENT IN THE THREE FORMATS (BASED ON
DATA FROM DISTRICT FORMAT EVALUATION,
February 25, 1960)

Figure 4. This graph shows the numerical evaluations comparing the easy correlation of the learnings with the activities in the three formats.

Weaknesses were noted in the "S" and "T" formats. Twelve of those evaluating felt that the "S" format was weak in this area, while four of those evaluating felt that the "T" format was weak in this area.

Those noting weaknesses in the "S" format felt that it was too difficult to trace the thoughts and ideas of the

format due to the physical set-up. Others felt a lack of organization in the unit and that it was "not handy."

Those noting strengths in the "C" format felt that it was "excellent," "conveniently laid out," and "well-organized." (See Figure 4).

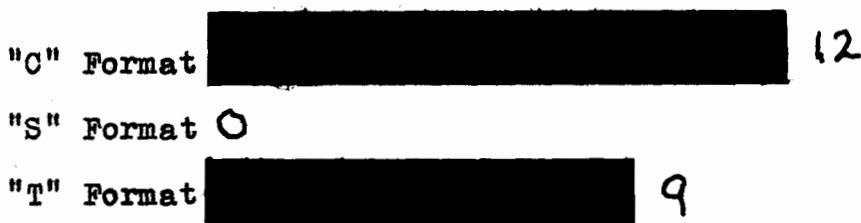


FIGURE 4

NUMERICAL EVALUATIONS COMPARING THE EASY CORRELATION OF THE LEARNINGS WITH THE ACTIVITIES IN THE THREE FORMATS (BASED ON DATA FROM DISTRICT FORMAT EVALUATION, February 25, 1960)

Figure 5. This graph shows the numerical evaluations comparing the convenient placement of the objectives in the three formats.

Ten of the twelve evaluators felt that the "S" format was weak in this area; two of the twelve evaluators felt the "T" format was weak in this area; and one of the twelve evaluators felt the "C" format was weak in this area.

Weaknesses in the "T" and "S" formats were attributed to the wide separation of the objectives from the resources and activities. (See Figure 5, page 34).

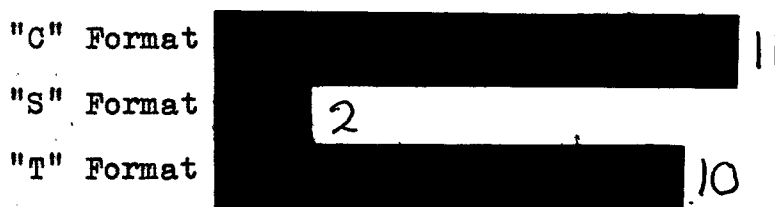


FIGURE 5

NUMERICAL EVALUATIONS COMPARING THE CONVENIENT PLACEMENT OF THE OBJECTIVES IN THE THREE FORMATS (BASED ON DATA FROM DISTRICT FORMAT EVALUATION, February 25, 1960)

Figure 6. This graph shows the numerical evaluations comparing the convenient placement of the resources in the three formats.

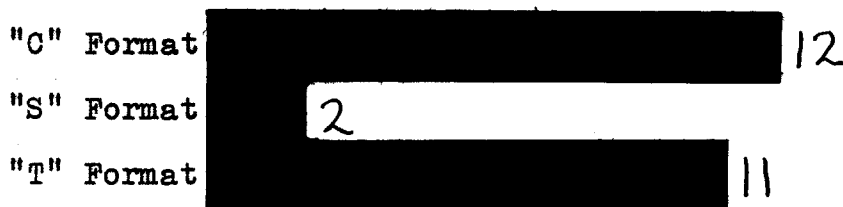


FIGURE 6

NUMERICAL EVALUATIONS COMPARING THE CONVENIENT PLACEMENT OF THE RESOURCES IN THE THREE FORMATS (BASED ON DATA FROM DISTRICT FORMAT EVALUATION, February 25, 1960)

Ten of the twelve evaluators felt that the "S" format lacked in this over-all area, a weakness largely due to the wide separation of materials and resources found in the physical set-up.

Twelve evaluators felt that the "C" format was strong in this area, and eleven evaluators felt that the "T" format was strong in this area. (See Figure 6).

Figure 7. This graph shows the numerical evaluations comparing the convenient placement of the readings in the three formats.

Eight people noted weaknesses in the "S" format in this area. These weaknesses were due largely to the placement of such aids in a separate section completely removed from the activities.

Twelve evaluators felt that the "C" format was strong in this area; and eleven evaluators felt the "T" format was strong in this area. (See Figure 7).

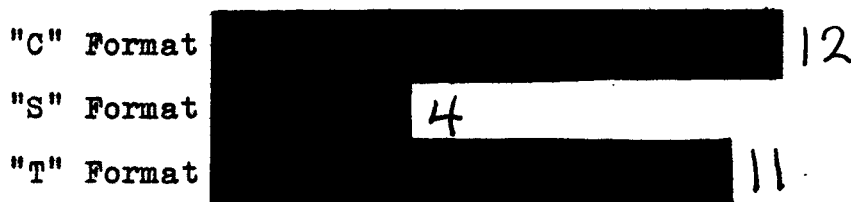


FIGURE 7

NUMERICAL EVALUATIONS COMPARING THE CONVENIENT PLACEMENT OF THE READINGS IN THE THREE FORMATS (BASED ON DATA FROM DISTRICT FORMAT EVALUATION, February 25, 1960)

Figure 8. This graph shows the numerical evaluations comparing the convenient placement of the visual aids in the three formats.

Nine of the twelve evaluators noted weaknesses in the "S" format in this area. Weaknesses in this section were attributed to the wide separation of such aids within the unit.

Twelve evaluators felt that the "T" format was strong in this area, while ten people felt that the "C" format was strong in this area. (See Figure 8).

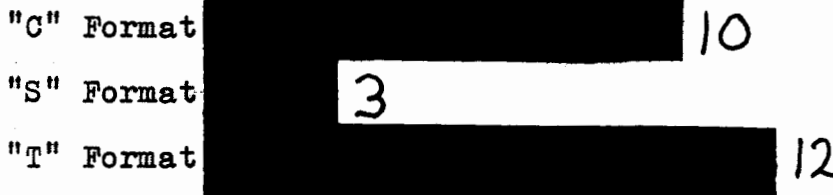


FIGURE 8

NUMERICAL EVALUATIONS COMPARING THE CONVENIENT
PLACEMENT OF THE VISUAL AIDS IN THE THREE
FORMATS (BASED ON DATA FROM DISTRICT
FORMAT EVALUATION, February 25, 1960)

Figure 9. This graph shows the numerical evaluations comparing the convenient placement of the visual aids in the three formats.

Eleven of the twelve evaluators noted weaknesses in the "S" format in this area. Weaknesses in this section were attributed to the wide separation of such aids within the unit.

Twelve evaluators felt that the "C" format was strong in this area; nine of the evaluators felt the "T" format was strong in this area. (See Figure 9, page 37).

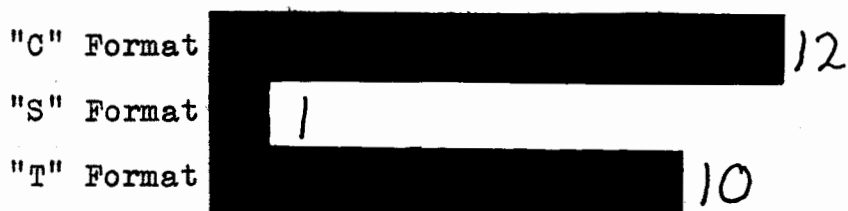


FIGURE 9

NUMERICAL EVALUATIONS COMPARING THE CONVENIENT
 PLACEMENT OF THE ACTIVITIES IN THE THREE
 FORMATS (BASED ON DATA FROM DISTRICT
 FORMAT EVALUATION, February 25, 1960)

Figure 10. This graph shows the numerical evaluation comparing the self-explanation of the format column headings in the three formats.



FIGURE 10

NUMERICAL EVALUATIONS COMPARING THE SELF-EXPLANATION
 OF THE FORMAT COLUMN HEADINGS IN THE THREE FORMATS
 (BASED ON DATA FROM DISTRICT FORMAT EVALUATION,
 February 25, 1960)

Six of the twelve evaluators felt the "S" format was weak in this area. Twelve evaluators felt that the "T" format was strong in this area; and eleven evaluators felt that the "C" format was strong in this area. (See Figure 10).

Figure 11. This graph shows the numerical evaluations comparing the clarity of the material to be covered in the three formats.

Eight of the twelve evaluators felt that the "T" format was strong in this area, and twelve evaluators felt that the "C" format was strong in this area. Nine of the twelve evaluators felt that the "S" format was weak in this over-all picture of the unit format. (See Figure 11).

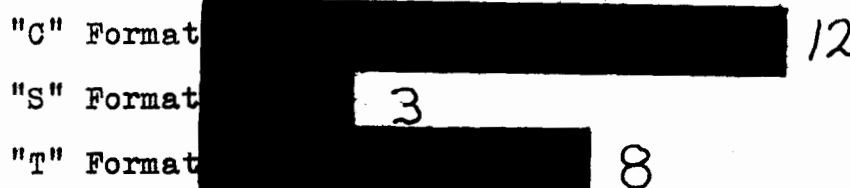


FIGURE 11

NUMERICAL EVALUATIONS COMPARING THE CLARITY OF
THE MATERIAL TO BE COVERED IN THE THREE
FORMATS (BASED ON DATA FROM DISTRICT
FORMAT EVALUATION, February 25, 1960)

Figure 12. This graph shows the numerical evaluations comparing which format should be used in the writing of a resource unit on Modern California.

Eleven of the twelve evaluators felt the "C" format would be the most useful in writing a Resource Unit on Modern California. They felt this unit plan was well organized and suited to teacher use. They also felt it was convenient, easy to use and understand, and practical. (See Figure 12, page 39).

"C" Format [REDACTED] ||
"S" Format ○
"T" Format [REDACTED] /

FIGURE 12

NUMERICAL EVALUATIONS COMPARING WHICH FORMAT
SHOULD BE USED IN THE WRITING OF A RESOURCE
UNIT ON MODERN CALIFORNIA (BASED ON DATA
FROM DISTRICT FORMAT EVALUATION
February 25, 1960)

II. SUMMARY

One statement of general applicability suggested that time allotments should be outlined for specific areas of study.

While a sincere effort was made on the part of the evaluators in the writing of comments on the evaluation forms, a lack of objectivity was noted in many of the comments.

Reasons for this lack of objectivity in teachers' comments could be attributed to the following:

1. Inexperience in being truly analytical.
2. Inexperience in evaluating material of this type.
3. Inexperience in working with resource units.

A follow-up study to further explore the preceding comments would be useful to school district consultants and educators in the planning of future in-service and teacher training programs.

In general the twelve evaluators felt the "S" and "T" formats were weak in organization. Wide separation of the objectives from the resources was the most noted weakness in the "S" format. Both the "S" and the "T" formats did not clearly separate the content from the objectives. Some evaluators felt the learnings and activities in the "T" format were too widely separated. With the exception of these two weaknesses, most evaluators felt the "T" format was a most usable form.

Very few evaluators indicated weaknesses in the "C" format. After reviewing the comments favoring this form, evidence indicates a strong preference for complete and easy to handle resource unit formats.

CHAPTER VI

SUMMARY AND CONCLUSIONS

I. THE SUMMARY

Review of the Literature

Research revealed a basic structure for developing resource units: (1) selecting the topic, (2) stating the problem, (3) stating the importance of the unit, (4) forming objectives, (5) developing content, (6) developing activities, (7) developing evaluation procedures, and (8) developing bibliography. Once the basic ingredients of the resource unit have been developed, the next step in the preparation of the unit is the organization of the material into an integrated plan on paper.

The Selection of the Formats

Research resulted in the selection of three diverse resource unit formats. Resource units throughout the United States were carefully examined by the writer. For purposes of evaluation, diversity in form and methods of preparation were explored. The formats included (1) The Santa Clara County Social Studies Guide, designated the "S" format, (2) Dr. Draper's "T" format, used at the University of Washington, and (3) the "C" for composite

format developed from resource forms used in Denver, Colorado; Kalamazoo, Michigan; and San Mateo, California.

Since teachers in the Cupertino School District were already familiar with the Santa Clara County Social Studies Guide, on the basis of familiarity and previous use, it was decided to use this guide's form as one of the formats to be evaluated.

The format proposed by Dr. Edgar W. Draper of the University of Washington was chosen on the basis of recommendation. Careful study by Dr. Draper displayed convincing statements supporting his format. Recommendations by college instructors as to the worth of the format also supported the election of this resource unit format.

The composite form was made up of formats used in Denver, Colorado; Kalamazoo, Michigan; and San Mateo, California. Communications received from these districts revealed that some thought had been given to the choosing of the formats used in the writing of the district's own resource unit. Resource units examined in the writer's library research revealed a wide usage of the three column format. Methods of choosing the formats used by these districts varied widely. Generally, groups of teachers and consultants comprised the curriculum committees. The format most fitting the needs of the district thus evolved after comparison, usage, and discussion.

The Evaluation Form

Lack of previous studies concerning resource unit formats and shortage of specific material dealing with resource unit evaluation forms made necessary the production of an original format evaluation form.

The evaluation form was divided into four categories: (1) clarity, (2) organization of the material, (3) general consideration, and (4) elaboration of weaknesses. Placed on a separate sheet of paper was a concluding question asking the evaluators which format they would prefer in the writing of a resource unit on Modern California for the Cupertino School District.

The Evaluation Meeting

Twelve fourth grade teachers of the Cupertino School District were chosen by the Curriculum Consultant to be the evaluating group. They met in the Board Room of the Cupertino School District where instructions concerning the evaluation materials and procedures were given by the writer.

The pre-planning preceding the meeting and the formal atmosphere maintained during the meeting enabled the evaluators to work in a situation uninterrupted by unnecessary noise and commotion. The evaluators were organized into groups of four and spaced to discourage and eliminate the sharing of opinions.

The Evaluation of the Three Resource Unit Formats

The method of re-writing the same material using the three chosen formats (as the Denver, Colorado curriculum committee had done) was found most usable.

Some of the statements of the evaluators did not always isolate weaknesses in the formats. This lack of objectivity could have been caused by any or all of the following: (1) inexperience in being truly analytical, (2) inexperience in working with resource units, or (3) lack of experience in working with material of the type examined in this study.

An analysis of the written opinions as recorded by the evaluators revealed a tendency to evaluate the material in the resource units instead of the organization of this material.

The Evaluation Graphs

Twelve simple bar graphs were used in the presentation of the findings of the district format evaluation meeting. The strengths and weaknesses of the three formats were compared in the three main areas of (1) clarity, (2) organization of material, and (3) general considerations.

II. CONCLUSIONS

The "S" format was shown to be weak in organization and clarity. This format was included in this study primarily for its briefness and diversity in form. An analysis of the opinions concerning the weakness of this format indicated a desire for a more complete and easier to use form. Ironically, this format was poorly received by the evaluators. The "S" format was in reality the Santa Clara Social Studies Guide for Fourth Grade Teachers, a resource already used by many of the evaluators.

The "T" format did not always permit a close correlation of material and had a tendency to deny the user a clear picture of the material to be covered. The content section of the "T" format was thought to be located inconveniently for easy correlation with the objectives and activities. Most evaluators felt the "T" format was a most usable form, and considered it to be the best of the three formats in the areas of (1) visual aids and (2) self-explanation of the column headings.

The "C" format was chosen by a majority of the evaluators as being the format they would use in writing a Resource Unit on Modern California. The format was thought to be easy to use and clear in its organization. Like material was grouped conveniently together. Correlation of

objectives, content, and activities could be accomplished easily and effectively. Comments and preferences of the evaluators illustrated a tendency toward the use of complete and well organized formats in the writing of resource units. A District Curriculum Committee has been formed for the purpose of writing a Resource Unit on Modern California.

III. IMPLICATIONS FOR FURTHER STUDY

From the Cupertino School District's point of view, this study has been helpful in promoting interest in developing a resource unit on Modern California. This has been illustrated not only by the follow-through in the forming of a Curriculum Committee but also in the continued interest and assistance throughout the study.

From the writer's standpoint, the study was successful in comparing the relative weaknesses and strengths of the three Resource Unit Formats. However, certain weaknesses regarding available literature and the manner of evaluating the formats were exposed. These weaknesses have already been discussed earlier in this chapter. The study also indicated apparent inexperience on the part of the teachers in the use of resource units. It would be concluded, therefore, that a follow-up study dealing with teacher use of resource units would be valuable to future researchers in this field.

This paper has concerned itself with the analysis of three diverse resource unit formats, the Santa Clara County Social Studies Guide ("S" format); the "T" format advocated by Dr. Draper of the University of Washington; and the composite or "C" format used by Denver, Colorado; Kalamazoo, Michigan; and San Mateo, California. The paper has also concerned itself with the evaluation of these three formats by twelve fourth grade teachers in the Cupertino School District. Lastly, the paper recommended to the Cupertino School District, through teacher evaluation, a format to be used in the writing of a resource unit on Modern California.

This writer hopes that this study will be of value to future researchers interested in the writing of resource units. The material and procedures used in the preparation of this study enabled the writer to gain new experiences in the areas of research and public relations.

In conclusion, it is hoped that future research will be done to determine if a need exists for more teacher-orientation in the use of the Resource Unit.

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5. Santa Clara County Board of Education. Social Studies Guide for Grade Four. Moorepark, California, 1957.
6. Santa Monica Unified School District. A Unit of Work for Grade Four--Modern California. Santa Monica: 1957.
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The outline forms were derived from the following sources:

"C" Format

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2. Department of Instruction. Social Studies Program of the Denver Public Schools. Denver: Denver Public Schools, 1954.

3. San Mateo County Board of Education. Modern California.
San Mateo: 1957.

"S" Format

1. Santa Clara County Board of Education. Social Studies Guide for Grade Four. Moorepark, California:
1954.

"T" Format

1. Draper, Edgar W. Principles and Techniques of Curriculum Making. Seattle: University of
Washington. (n.d.)

APPENDIX A

"C" FORMAT

PREFACE

It is the purpose of these formats to give you, as teachers, an idea of the various methods that can be used in writing a resource unit. The material presented is but the embryo of a much larger resource unit on Modern California. The same amount of material appears in each format, but owing to the physical arrangement of the formats, differences in length resulted.

It is assumed that a complete Resource Unit on Modern California would include sections on appraisal and evaluation. These sections could appear at the end of the unit or at the end of each section as the writers see fit.

OBJECTIVES FOR RESOURCE UNIT ON MODERN CALIFORNIA

SKILLS

1. To develop skills in group work
 - a. Being good members of the group
 - b. Conforming to group standards
 - c. Participating in group discussion
 - d. Sticking to the point
 - e. Disagreeing in a friendly way
 - f. Learning to summarize and generalize

2. To develop study skills
 - a. Accurate observation
 - b. Use of index and table of contents to locate material which they wish to read
 - c. Gathering facts from various materials
 - d. Reading accurately to answer questions and follow directions
 - e. Understanding and using globes and maps

3. To develop creative skills
 - a. Speech
 - b. Art
 - c. Dance
 - d. Written expression
 - e. Dramatic play and dramatization

KNOWLEDGES AND UNDERSTANDINGS

1. To develop knowledge of---
 - a. The four regions of California; sea coast, valleys, mountains, deserts
 - b. Relation of California to adjoining states and countries, to the United States, and to the world
 - c. Climates of California, and reasons for their great variety
 - d. Major mountain ranges; Sierra Nevada, Coast Ranges; Mountain Peaks; Mt. Lassen, Mt. Shasta, Mt. Whitney
 - e. Major rivers; Sacramento, San Joaquin, Colorado, others important in regions studied
 - f. Other bodies of water; Pacific Ocean, Lake Tahoe
 - g. Important cities and reasons for their location and growth
 - h. Natural resources of California and how they are developed for man's use

2. To develop understandings of---the problem solving methods---
 - a. Identifying and stating problem of individual or group concern
 - b. Securing information related to the particular problem for a variety of sources
 - c. Verifying information
 - d. Organizing information, secured and verified
 - e. Summarizing and drawing conclusions
 - f. Stating and applying generalizations in action appropriate to specific problem
 - g. Judging effectiveness of solution to the problem

ATTITUDES AND APPRECIATIONS

1. To develop an appreciation of---
 - a. The state
 - b. The responsibility for developing, safeguarding and maintaining the good things of California
 - c. The opportunities and challenges of life in California
 - d. The contributions made by various workers to the development of California
 - e. The contributions of the past to Modern California
 - f. The contributions of various cultures to California

"C" FORMAT-----GEOGRAPHY OF CALIFORNIA

NEEDS	CONTENT	ACTIVITIES
1. To understand the location of California:	<p>Map reading concepts:</p> <ol style="list-style-type: none"> 1. Meaning of scale. 2. Use of color. 3. Latitude and longitude. 4. Cardinal directions. 5. World is round. 6. Down means center of the earth. 7. Up means outward from the earth's center. 	<p><u>References:</u></p> <p>Richards, <u>Our California Today</u>, pages 25-28.</p> <p>Craig, <u>Science Around You</u>, pages 40-51.</p> <p>Craig, <u>Science Everywhere</u>, pages 98-115.</p> <p><u>Activities:</u></p>
a. What are the important map reading concepts?		<p><u>Discuss:</u></p> <ol style="list-style-type: none"> a. Symbolism of a map. b. Symbolism of maps and globes used. c. Meaning of state, country, United States. d. Physical and political maps.
b. What states border California?		
c. What is California's place in the world and the United States?	<p>California's neighbors: Oregon, Nevada, Arizona, Mexico, the Pacific Ocean; direction of each.</p>	
d. Where are the large land and water forms in relation to California?	<p>California's place in the United States, North America, and the world.</p> <ol style="list-style-type: none"> 1. Western Hemisphere 2. North of equator in north temperate zone. 3. Nearer equator than north pole. 	<p>See filmstrip: F-3334, "What is a Map?" Draw map of classroom, putting in shapes of furniture, then make map using symbols to represent objects.</p>

NEEDS

CONTENT**ACTIVITIES**

Location of oceans, continents, climate zones, and equator with reference to California.

Vocabulary:

equator, continent, zone, pole, state, temperate, country, ocean, arctic, tropic, peninsula,

See filmstrip: F-3332, "Physical Environment of California's Land and People."

Using a globe, locate the seven continents and oceans; locate United States as part of North America, California as one of the 50 states.

Use politically marked United States map:

- a. Locate your community, determine latitude.
- b. Locate neighboring states, ocean.
- c. Locate places children have visited.
- d. Figure lengths and widths of California.
- e. Trace routes taken coming to California.

Using desk outline maps:

- a. Label western states, Pacific Ocean.
- b. Locate your community.

Collect many different kinds of maps. Compare and contrast as to scale, purposes, uses. Start a chart on which geographic

NEEDS	CONTENT	ACTIVITIES
1. To understand the location of California.	The Four Great Regions:	terms can be listed, illustrated, and defined.
2. To know and be able to locate outstanding physical characteristics.	<ol style="list-style-type: none"> 1. Coast 2. Mountains 3. Valleys 4. Deserts 	<u>References:</u>
a. What is basic topography?	<p>Mountain Ranges:</p> <ol style="list-style-type: none"> 1. Location 2. Vegetation 3. General height 4. Important peaks 5. Only active volcano 6. Waterfalls 	<p>Bailey, <u>Picture Book of California.</u> Disney, <u>The Living Desert.</u> Pough, <u>All About Volcanoes and Earthquakes.</u> Richards, <u>Our California Today,</u> pages 1-28. Schneider, <u>Far and Near,</u> pages 2-22, 23-38. Schneider, <u>Rocks, Rivers, and the Changing Earth,</u> pages 85-106 (coast); pages 61-84 (mountains); pages 5-22 (rivers).</p>
b. How does this topography affect plant and animal life as well as human activity?	<p>Valleys:</p> <ol style="list-style-type: none"> 1. Location 2. Vegetation 3. Use 	<u>Activities:</u>
	<p>Rivers:</p> <ol style="list-style-type: none"> 1. Location, routes 2. Tributaries 3. Sacramento 4. San Joaquin 5. Colorado 	<p>Discuss the observations of children who have made airplane trips. Importance of mountains as water sheds, as sources of lumber, as determiners of recreation areas throughout the year. Discuss the constant changing of mountains.</p>

NEEDS

CONTENT**ACTIVITIES**

c. What is the location of each basic physical feature?

Deserts:

1. Vegetation
2. Animal Life
3. Plant Life
4. Minerals
5. Location

Discuss how rivers are formed and what they do.

Find physical features on maps using:

1. Our California Today, pages X, XI.
2. California Wall Map.

Using free oil company maps make up and work arithmetic problems dealing with mileage, miles per gallon, travel time, travel expenses, etc.

Make a scrapbook of California scenery.

Make dioramas showing plant and animal life of regions studied.

Add new terms and symbols to geographical terms chart started previously. Illustrate each.

Locate physical features on individual desk maps.

Do experiments as given in Schneider reference.

NEEDS

CONTENT**ACTIVITIES**

d. How is each physical characteristic indicated on a map of California?

Lakes
Harbors

Vocabulary:

river valley
lake hill
bay forest
creek desert
mountain

Map reading:
Color symbolism.

Make a papier-mache map of California on a large piece of plywood. (Begin with accurate map outline made by projecting on opaque projector. Mark mountain ranges by half-pounded nails. Cover with newspaper and wheat paste papier-mache.)

See Films:

M-580 - "Life in the Hot Dry Lands."
M-586 - "Lassen"
M-647 - "Life in the Central Valley of California."
M-1362 - "Yosemite"
M-1628 - "Chapparel - The Elfin Forest."
M-2026 - "Death Valley National Monument"

See Filmstrips:

F-2662 - "Geography of American Peoples - Valleys and Coastlines of California"
F-3336 - "California Land and Peoples"

Physical environment: (Location, landforms, underlying rocks and minerals.)

NEEDS

CONTENT**ACTIVITIES**

3. To understand the climatic conditions in California.

a. What is the general climate?

b. Why are there variations in the basic climate?

c. How do these influence climate?

a. California Current

b. Japanese Current

c. Prevailing Winds

Japanese-California current and direction of prevailing westerly winds are the cause of general mildness:

1. Long growing season.
2. Pleasantness of people.
3. Rainy and dry seasons.

In California, mountains and ocean have a great deal to do with heat and cold in a given locality. At times they appear as if more important than season or latitudes.

Use Pictures:

P. 15 - "California Scenery"

P. 149 - "California Desert"

P. 173 - "The Face of the Land"

References:

Encyclopedia for information on ocean currents.

Richards, Our California Today, pages 1-13, 161-162.

Richards, Our California, pages 204-207, 211, 216, 230, 234, 235, 222, 226-227, 237.

Schneider, Science in Your Life, pages 13-33, 143-176.

Activities:

Discuss:

The effect of high mountains in causing rainfall.

What California might be like without the prevailing westerly winds and ocean currents that exist.

How our homes, clothing and living habits would differ if we lived on other climatic regions.

NEEDS	CONTENT	ACTIVITIES
<p>d. What are the types of climate common in various areas; what are the effects of these climates?</p>	<ol style="list-style-type: none"> 1. Effect of altitude 2. Mountain barriers and dry valleys 3. Damp coasts 4. Valley temperature areas 5. Heavy rain areas 6. Arid areas 7. Winter snow pack 	<p>Why is it correct to say the "climates" of California? The weather pattern in your locality, most typical features of local climate.</p>
	<p>The various climates:</p> <ol style="list-style-type: none"> 1. Damp coastal climates 2. Interior valley climates 3. Mountain climates 4. Desert climates 5. Foothill climates 	<p>Write to the climatologists, United States Weather Bureau Office, San Francisco for information on California climate. Get weather maps, rainfall data.</p>
	<p>Climate is the total effect of the weather throughout the year in any one place. Weather is the condition of the air at any one time.</p>	<p>Report to another class on the currents and prevailing westerly winds.</p>
		<p>Use colored chalk or grease crayon on globe or wall map of the world to show the currents.</p>
		<p>Locate areas of different climates on a wall map of California.</p>
		<p>Make a daily record of weather phenomena and their changes. From your observations try to discover patterns of weather change, such as alternating dry and rainy weather, clear and cloudy weather, temperature</p>

NEEDS	CONTENT	ACTIVITIES
e. How are clouds made?	<p>Vocabulary:</p> <p>weather climate frost snow ice arid rain mist fog storms shower humid</p>	<p>changes, sequence of cloud types with the approach and passage of a storm, changes in the weather as seasons change.</p> <p>Make plastic overlays showing relationship of climate areas, topography, cities.</p> <p>Write the Chamber of Commerce in various areas for brochures. Note comments on climate. Are the comments always accurate?</p>
4. To locate important man-made contributions to the map.	<p>Chief Cities:</p> <ol style="list-style-type: none"> 1. San Francisco 2. Los Angeles 3. Eureka 4. San Diego 5. Sacramento 	<p>Make a movie showing scenes in various climatic areas. Write sales talks for each, listing the advantages of living there.</p>
	<p>Shasta Dam, Hoover Dam</p>	<p>See Film: M-1457 - "California"</p> <p>See Filmstrip: F-3335 - "California Climate"</p>
	<p>Chief Railways:</p>	<p><u>References:</u></p>
	<p>Main Highways: US 101, 90, 40, 50, 66, 365, 99.</p>	<p>Richards, <u>Our California Today</u>, p. 33-65, 163-178. Richards, <u>Our California</u>, page 172.</p>

NEEDS**CONTENT****ACTIVITIES**

- a. What is the symbol used for each of these?

Activities:

Discuss how geography affected the location of each city and man-made contribution.

Locate listed and other important places, using desk outline maps and Gunter maps #6 and #7.

Play "Twenty-Questions" using point to be located on a wall map.

5. To understand how methods of transportation and communication have developed.

- a. What means were used during California's first years?

- b. What part did shipping play in California's development?

First years:
Mail first carried by overland stage and pony express.

Transcontinental telegraph completed in 1861.

Part played by shipping:
Routes by Cape Horn and Panama.

References:

Gunter, Resource Book for California Maps, pages 18, 19, 22-24.

Richards, Our California Today, pages 33-65.

Richards, Our California, pages 141-144.

Activities:

Discuss the difficulties of travel in early days, costs of transportation and types of transportation.

NEEDS	CONTENT	ACTIVITIES
c. How have the railroads contributed to California's growth?	<p>Opening of Panama increased inter-coastal shipping.</p> <p>Part played by railroads: First transcontinental line completed in 1869 with driving of "Golden Spike."</p>	<p>Discuss the importance of railroads before World War I compared with now.</p> <p>Discuss why International Airport is important to Santa Clara County.</p> <p>Discuss our family cars, their purposes, how our lives would be changed without them.</p> <p>Dramatize problems encountered in building the telegraphy line, the railroad, and others.</p>
d. How have highways grown?	<p>Big Four: Stanford, Hopkins, Huntington, Crocker set up Southern Pacific as railroad monopoly in California.</p>	<p>Make a timetable that might have been used by a passenger traveling on the stage from Missouri to San Francisco.</p> <p>Set up a model telegraph and practice sending codes.</p> <p>Make a scrapbook of pictures of 19th Century sailing and steam vessels.</p>
e. What recent developments have speeded up transportation and communication?	<p>Completion of Santa Fe line to Los Angeles opened up Los Angeles.</p> <p>Refrigerator car further increased shipping in greater numbers.</p>	<p>List items that could have been in the cargoes of ships arriving and departing from San Francisco.</p> <p>On Gunter Map #5 find the Central Pacific route over the Sierras.</p>

NEEDS

CONTENT**ACTIVITIES**

Part played by highways:
Early Spanish and immigrant trails became wagon roads, then paved highways.

Appearance of first low-priced cars sparked road improvement.

Cars quickly became popular in California because of long distances and all-year use of highways.

Automatic traffic signals and white lane lines were California ideas.

Trucking of freight became common in the second quarter of the century.

San Francisco Bay auto ferries were replaced by bridges in 1937.

Make lists of materials carried out of California by railroads fifty years ago and now.

Using a highway map, plan a summer trip and figure the mileage.

See Films:

M-643 - "Seaports of the Pacific West."

M-2292 - "Trucking."

See Filmstrips:

F-3335 - "History of California Transportation"

F-3337 - "Highways"

Use Pictures:

P. 94 - "Transportation"

NEEDS**CONTENT****ACTIVITIES**

California had highest auto registration in the United States in 1950.

Recent developments:

1. New York to San Francisco telephone line.
2. First public use of telephone in Los Angeles.
3. Shipping of perishables by air.
4. Speed of passenger and mail service by air contributed to the growth of city business centers.

6. To understand California's early industrial development and the reasons for it.

Raw materials can be worked only if power is available; California industry has been set up where sufficient water, steam, power, electricity or gas could be had.

References:

Richards, Our California Today, pages 201-221; 141-157.
Richards, Our California, pages 88-90, 130-132.

NEEDS	CONTENT	ACTIVITIES
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Lumbering, flour milling, wagon building, tanning, manufacture of explosives and textiles, sugar refining, cigar making, and iron working were important in the state's first days.

Production of oil and borax, manufacture of furniture, and whaling were all being carried on by 80's.

World War II caused expansion in all fields, with particular emphasis on aviation and electronics.

- Areas to cover:
1. Historical background
 2. Geography
 3. Industries

Activities:

Discuss why manufacturing began so early in the history of the state.

Discuss why some men profited more in business and industry than in the gold fields.

Locate gas service lines and power transmission lines on Gunter Maps.

Make charts showing industrial development in first quarter of the 20th century.

References:

Gunter, California Maps Resource Book.

Lenski, San Francisco Bay.

McNeer, The Story of California.

Peet, First Book of Bridges.

Richards, Our California Today, pages 41-55.

7. To find out about the large population centers in California:

NEEDS	CONTENT	ACTIVITIES
<p>7. To find out about the large population centers in California:</p> <p>San Diego, San Francisco, Los Angeles.</p>	<p>4. Business and stores 5. Recreation 6. Music and art 7. Homes 8. Transportation and trade 9. Bridges 10. Schools 11. Churches 12. Communication 13. Relation to surrounding area 14. Relation to rest of world</p>	<p><u>Activities:</u></p> <p>Discuss the problem of cities. Discuss the reasons for growth of each of these cities and when it occurred.</p> <p>Write for brochures and other information.</p> <p>Make strips of pictures collected; write reports to accompany these pictures when shown on opaque projector.</p> <p>Make murals, dioramas, and movie strips as needed to report information.</p> <p>Make scrapbooks of reports, pictures, and other materials collected and organized.</p> <p>See Filmstrips: F-1480 - "History of California, San Francisco, in the 1840's"</p>
<p>8. To find about other cities and towns in California.</p>	<p>Coast Region: Monterey Salinas Berkeley Eureka</p>	<p><u>References:</u></p> <p>Bailey, <u>Picture Book of California.</u> Richards, <u>Our California</u>, (locate desired cities and towns in index.)</p>

NEEDS	CONTENT	ACTIVITIES
9. To understand why concentration of population has shifted from north to south.	<p>Central Valley: Sacramento Bakersfield Fresno Stockton</p> <p>Desert Region: El Centro Indio Palm Springs San Bernardino</p> <p>Mountain Region: Columbia Sonora Grass Valley</p> <p>Gold rush days encouraged influx of newcomers.</p> <p>The railroads hastened important changes in population.</p>	<p>Richards, <u>Our California Today</u>, (locate desired cities and towns in index.)</p> <p><u>Activities:</u></p> <p>Discuss the location, size and facts about each city and town.</p> <p>Discuss variety of living and jobs.</p> <p>Discuss problems of water supply. Write to the Chambers of Commerce of each city and town discussed.</p> <p>Make a bulletin board display using map, ribbons, and brochures.</p> <p>Classify cities according to regions.</p> <p>Use pictures: P. 150 - "California Today"</p> <p><u>References:</u></p> <p>Richards, <u>Our California</u>, pages 172-174, 240-247.</p> <p>Richards, <u>Our California Today</u>, pages 75-86.</p>

NEEDS

CONTENT**ACTIVITIES**

	Opening of Panama Canal made California commerce leap ahead.	<u>Activities:</u> Discuss the problem that arises as cities grow larger: Inadequate housing. Crowded schools. Need for public transportation. Traffic problems.
	Gradual shift to south by 1920; by 1950 trend was more pronounced.	On a large wall map of California locate areas that have few or small towns and areas that have large cities.
	Less than 10% of California's population now live on farms.	
	Map Reading: Use of graduated dot to help reader visualize population distribution.	<u>Maps:</u> Gunter Series, #4, #5, #6, #7. Make plastic overlays showing relation of population and geography. Collect newspaper articles related to problems of increasing population.
10. To learn how the tremendous population growth of California has occurred.	The rising growth of population is the most significant factor in Modern California, affecting every other phase of living.	<u>References:</u> Flower, <u>A Child's History of California</u> , Chapters 21-25.

NEEDS	CONTENT	ACTIVITIES
a. Who are the people in California today?	Variety of people in California from virtually every country and race in the world.	Gunter, <u>California History Maps Resource Book</u> .
b. When did they come?		<u>Activities:</u> Discuss how each child's parents happens to be in California; list on chart, illustrate, write captions. Discuss basic needs of all people for food, clothing, shelter, as driving force in causing migration.
c. How did they get here?		Make a gold rush map, putting on it the names of communities which indicate the many nationalities and races which shared in the search for gold. Make a time mural showing the growth of California population from early times to the present; write reports and present to another class.

NEEDS	CONTENT	ACTIVITIES
11. To understand why people are still coming to California.	<p>The westward movement is still in progress. New advances and developments in industry and agriculture are attracting more people than did the Gold Rush.</p> <p>Other factors that sell tourists on living in California:</p> <ol style="list-style-type: none"> 1. Climate 2. Housing 3. Ways of earning a living 4. Cultural advantages 5. Scenery 6. Highways 7. Schools 8. Community 9. Points of interest 10. Celebrations 	<p><u>Reference:</u></p> <p>Peattie, <u>The Pacific Coast Ranges.</u></p> <p><u>Activities:</u></p> <p>Discuss how many children's families have recently moved into the community.</p> <p>Discuss the many varieties in landscape, industries and cities in California.</p> <p>Discuss the meaning of the word "population."</p> <p>Plan and make posters advertising the advantages of living in California.</p> <p>Write for and display brochures from Chambers of Commerce.</p> <p>Look in the want ads of newspapers for jobs and occupations people can have now.</p> <p>See Films: M-457 - "Westward Movement"</p>

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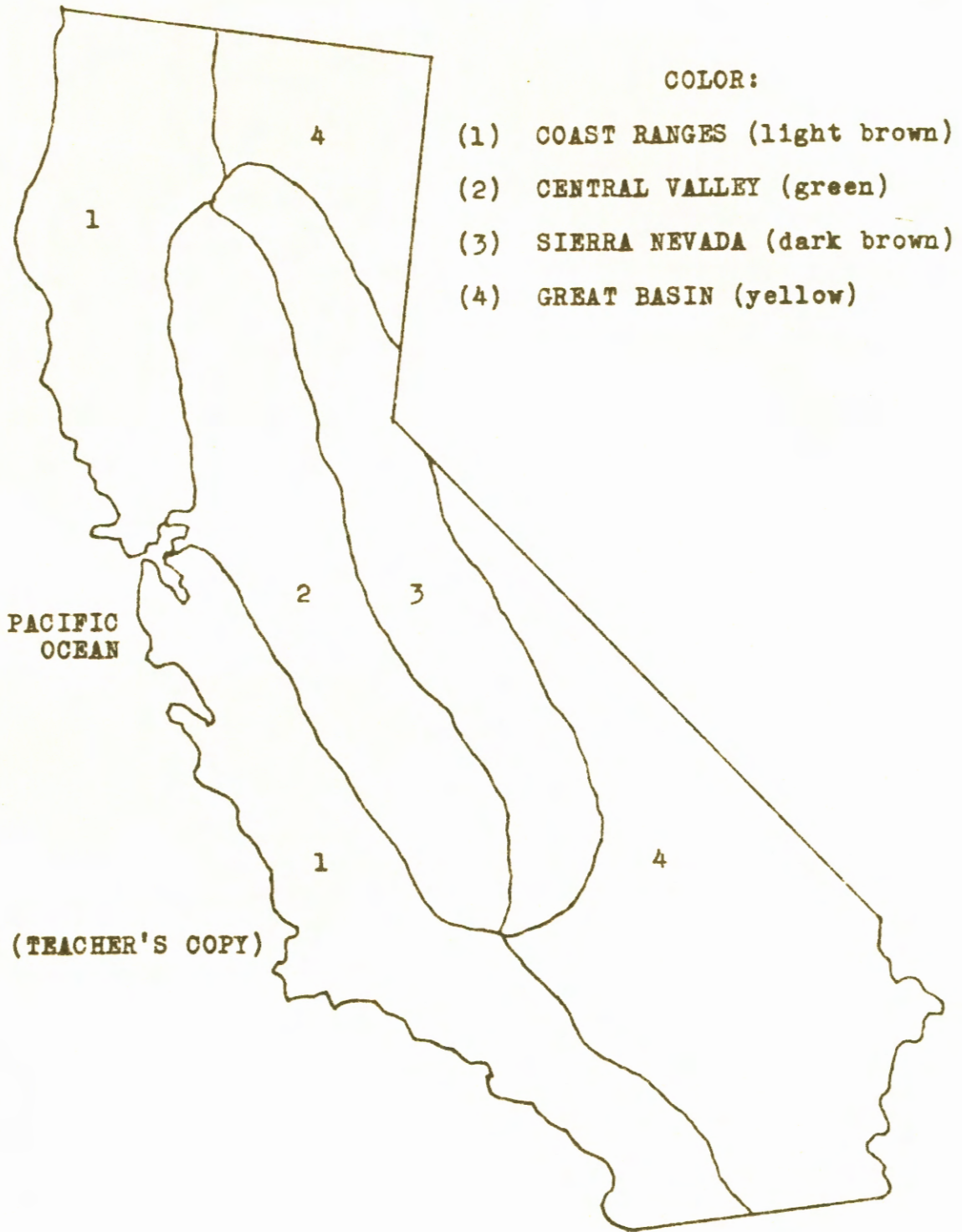
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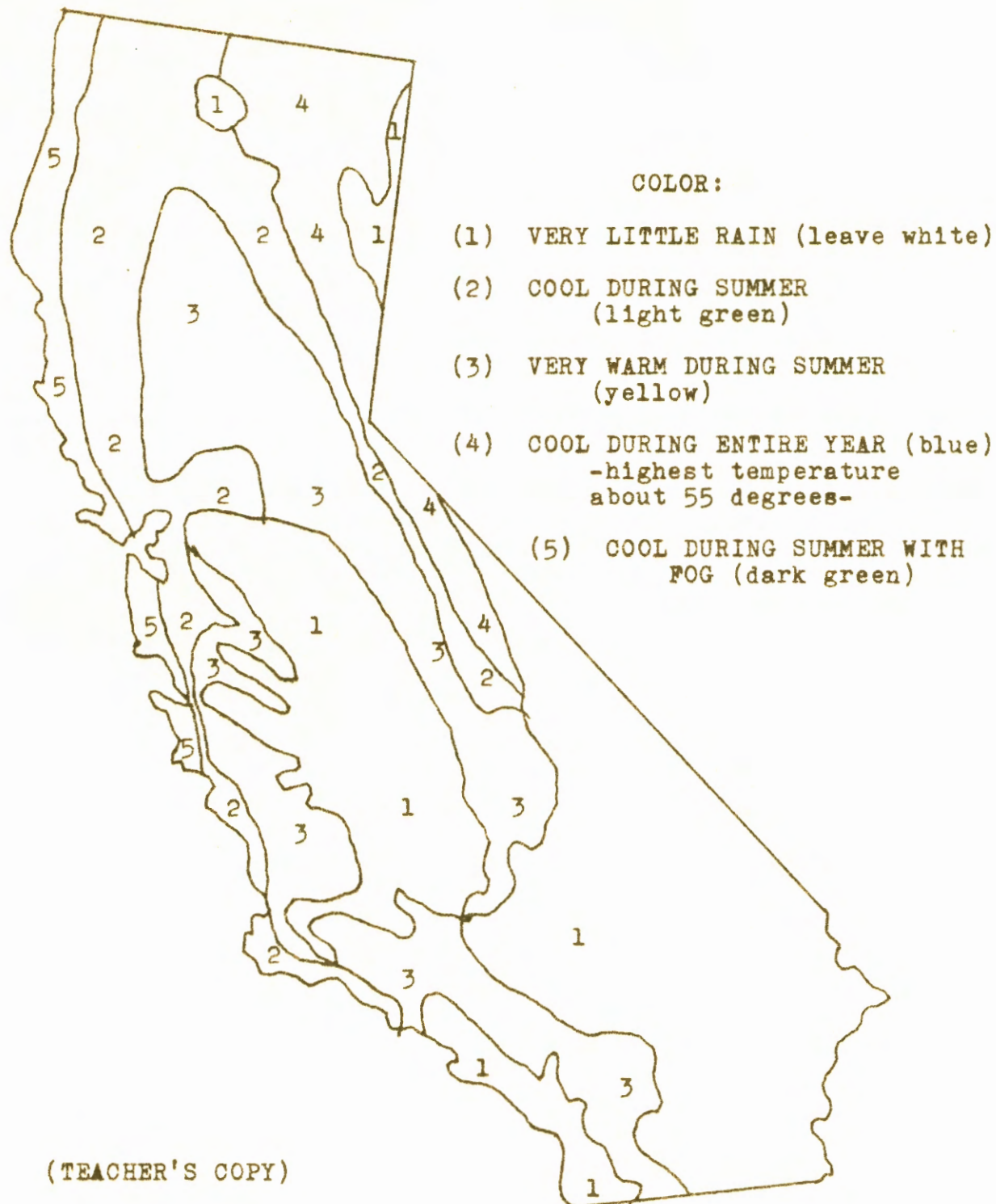
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LAND FORM REGIONS OF CALIFORNIA



CLIMATIC REGIONS OF CALIFORNIA



(TEACHER'S COPY)

APPENDIX B

"S" FORMAT

PREFACE

It is the purpose of these formats to give you, as teachers, an idea of the various methods that can be used in writing a resource unit. The material presented is but the embryo of a much larger resource unit on Modern California. The same amount of material appears in each format, but owing to the physical arrangement of the formats, differences in length resulted.

It is assumed that a complete Resource Unit on Modern California would include sections on appraisal and evaluation. These sections could appear at the end of the unit or at the end of each section as the writers see fit.

OBJECTIVES FOR RESOURCE UNIT ON MODERN CALIFORNIASKILLS

1. To develop skills in group work
 - a. Being good members of the group
 - b. Conforming to group standards
 - c. Participating in group discussion
 - d. Sticking to the point
 - e. Disagreeing in a friendly way
 - f. Learning to summarize and generalize

2. To develop study skills
 - a. Accurate observation
 - b. Use of index and table of contents to locate material which they wish to read
 - c. Gathering facts from various materials
 - d. Reading accurately to answer questions and follow directions
 - e. Understanding and using globes and maps

3. To develop creative skills
 - a. Speech
 - b. Art
 - c. Dance
 - d. Written expression
 - e. Dramatic play and dramatization

KNOWLEDGES AND UNDERSTANDINGS

1. To develop knowledge of---
 - a. The four regions of California; sea coast, valleys, mountains, deserts
 - b. Relation of California to adjoining states and countries, to the United States, and to the world
 - c. Climates of California, and reasons for their great variety
 - d. Major mountain ranges; Sierra Nevada, Coast Ranges; Mountain Peaks; Mt. Lassen, Mt. Shasta, Mt. Whitney
 - e. Major rivers; Sacramento, San Joaquin, Colorado, others important in regions studied
 - f. Other bodies of water; Pacific Ocean, Lake Tahoe
 - g. Important cities and reasons for their location and growth
 - h. Natural resources of California and how they are developed for man's use

2. To develop understandings of---the problem solving methods---
 - a. Identifying and stating problem of individual or group concern
 - b. Securing information related to the particular problem for a variety of sources
 - c. Verifying information
 - d. Organizing information, secured and verified
 - e. Summarizing and drawing conclusions
 - f. Stating and applying generalizations in action appropriate to specific problem
 - g. Judging effectiveness of solution to the problem

ATTITUDES AND APPRECIATIONS

1. To develop an appreciation of---
 - a. The state
 - b. The responsibility for developing, safeguarding and maintaining the good things of California
 - c. The opportunities and challenges of life in California
 - d. The contributions made by various workers to the development of California
 - e. The contributions of the past to Modern California
 - f. The contributions of various cultures to California

I. Problems

- A. What is the location of California?
 - 1. What are the map reading concepts?
 - 2. What states border California?
 - 3. Where is California's location in relation to the rest of the world?
 - 4. Where is California's location in the United States?
 - 5. Where are the large land and water forms in relation to California?
- B. What are the outstanding physical characteristics?
 - 1. What is the basic topography of the state?
 - 2. How does this topography affect plant and animal life as well as human activity?
 - 3. What are the locations of the major physical features in the state?
 - 4. How is each physical feature indicated on a map of California?
- C. What are the climatic conditions in California?
 - 1. What is the general climate?
 - 2. Why are there variations in the basic climate?
 - 3. What are the types of climate common in various areas?
 - 4. What are the effects of these climates?
- D. What are the important man-made contributions to the map?
 - 1. What is the symbol used for each?
- E. How have the methods of communication and transportation developed?
 - 1. What means were used during California's first years?
 - 2. What part did shipping play in California's development?
 - 3. How have the railroads contributed to California's growth?
 - 4. How have highways grown in importance?
 - 5. What recent developments have speeded up transportation and communication?
- F. What are the reasons for California's early industrial development?
 - 1. What two essentials must we have before we can establish good industry?
 - 2. What were some of the state's early industries?
 - 3. How did World War II make a difference in industry?
- G. What are the large population centers in California? What are they like?

- H. What other cities and towns are located in California?
- I. Why has the concentration of population shifted from north to south?
- J. How has the tremendous population growth of California occurred?
 - 1. Who are the people in California today?
 - 2. When did they come?
 - 3. Why did they come?
 - 4. How did they get here?
- K. Why are people still coming to California?

II. Activities

Location of California

1. Discuss the symbolism of maps and globes.
2. Discuss the meaning of county, state, United States.
3. Discuss the meaning of physical and political maps.
4. Draw map of classroom putting in shapes of furniture, re-draw map making the furniture symbols.
5. Use globe--locate the seven continents, oceans, United States and California.
6. Use political maps of the United States to locate the community, determine latitude, locate other states, and the ocean. Trace routes taken coming to California.
7. Use desk outline maps:
 - a. Label western states.
 - b. Pacific Ocean
 - c. Community
8. Collect kinds of maps--compare and contrast.
9. Prepare a geographical terms map.
10. Suggested Readings:
 1. Our California Today, Pages 25-28.
 2. Craig, Science Around You, Pages 40-51.
 3. Craig, Science Everywhere, Pages 98-115.

Outstanding Physical Characteristics

1. Discuss the four great regions of California, coast, mountains, valleys, and deserts.
2. Discuss the major mountains, coast ranges, Sierra Nevada, Lassen Peak, Mt. Whitney.
3. Discuss the major rivers, Sacramento, San Joaquin, Colorado.
4. Discuss the importance of mountains as water sheds, as sources of lumber, as determiners of climate, and as recreational areas.
5. Discuss how rivers are formed and what they do.

6. Write to the climateologist, United States Weather Bureau, San Francisco for information on California's climate. Get weather maps, rainfall data.
7. Report to another class on the currents and prevailing westerly winds.
8. Use colored chalk or grease crayon on globe or wall map of the world to show the currents.
9. Locate areas of different climates on a wall map of California.
10. Make a daily record of weather phenomena and their changes. From your observations try to discover patterns of weather change such as; alternated dry and rainy weather, clear and cloudy weather, temperature changes, sequence of cloud types with the approach and passage of a storm, changes in weather as seasons change.
11. Make plastic overlays showing relationship of climate areas, topography, cities.
12. Write the Chamber of Commerce in various climatic areas for brochures. Note comments on climate. Are the comments always accurate?
13. Make a movie showing scenes in various climatic areas. Write sales talks for each listing the advantages of living there.
14. Suggested Readings:
 1. Encyclopedia for Information on Ocean Currents.
 2. Richards, Our California Today, Pages 1-13, Pages 161-162.
 3. Richards, Our California, Pages 204-207, 211, 216, 230, 234, 235, 222, 226-227, 237.
 4. Schneider, Science in Your Life, Pages 13-33, Pages 143-176.
 5. Tannehill, All About the Weather, Pages 230-241.

Man-made contributions to the Map

1. Discuss the major cities of the state.
2. Discuss the major dams, railroads, highways.
3. Discuss how geography affected the location of each one of these man-made contributions to Modern California.
4. Locate listed and other important places using desk outline maps and Gunter maps #6 and #7.
5. Play 20 questions using point to be located on a wall map.

6. Find physical features on maps using the California Wall Set and the Gunter Map Set. Our California Today, Pages X, Pages 1-13.
7. Make a scrapbook of California scenery.
8. Make dioramas showing plant and animal life of regions studied.
9. Add new terms and symbols to geographical terms chart.
10. Locate physical features on individual desk maps.
11. Do experiments as given in Schneider reference.
12. Make a papier-mache map of California on large piece of plywood; other materials that could be used are green or yellow plasticeen clay.
13. Mathematically find the difference between the height of Mount Whitney and the depth of Death Valley.
14. Make a list of places visited by children in the summer. Organize as to region--mountain, desert, coast, central valley.
15. Committees may start a collection of pictures or make a mural to show characteristics of different regions.
16. Suggested Readings:
 1. Bailey, Picture Book of California.
 2. Disney, The Living Desert.
 3. Pough, All About Volcanoes and Earthquakes.
 4. Richards, Our California Today, Pages 1-28.
 5. Schneider, Far and Near, Pages 2-22, 23-38.
 6. Schneider, Rocks, Rivers, and the Changing Earth, Pages 85-106 (Coast), Pages 61-84 (Mountains) Pages 5-22 (Rivers).

Climatic Conditions in California

1. Discuss the effect of high mountains in causing rain.
2. Discuss what California might be like without the westerly winds and ocean currents that exist.
3. Discuss the influences on California climate of
 - a. Japanese Current
 - b. California Current
 - c. Prevailing Winds
 - d. Mountain Ranges
 - e. Latitude and Altitude
4. Discuss how our homes, clothing, and living habits would change if we lived in other climatic regions.
5. Discuss weather patterns in your locality; most typical features of the local climate.

6. Suggested Readings:1. Richards, Our California Today, Pages 33-65, Pages 163-178.2. Richards, Our California, Page 172.Transportation and Communication

1. Discuss difficulties of travel in early days.
2. Discuss relative costs of each type of transportation.
3. Discuss why railroads were needed if agriculture was to expand.
4. Discuss importance of railroads before World War I compared with their significance now.
5. Discuss why International Airport is important to Santa Clara County.
6. Discuss our family cars, their purposes, how our lives would be changed without them.
7. Discuss reasons for great importance of highway transportation in California.
8. Dramatize problems encountered in building the telegraph line and the trans-continental railroad.
9. Make a time table that might have been used by a passenger traveling on the stage from Missouri to San Francisco.
10. Set up a model telegraph and practice sending codes.
11. Make a scrapbook of pictures of 19th century sailing and steam vessels.
12. List items that could have been in the cargoes of ships arriving and departing from San Francisco.
13. On Gunter Map #5 find the Central Pacific route over the Sierras.
14. Make lists of materials carried out of California by railroads fifty years ago and now; also list materials carried into California fifty years ago and now.
15. Using a highway map, plan a summer trip and figure the mileage.
16. Compare time schedules of trains and planes between California and out of state airports. Figure amounts of time saved by business men on freight through the use of airways.
17. Act out early ways of transporting goods and communicating with others. Act out modern ways of transporting goods and communicating with others.

18. Suggested Readings:

1. Gunter, Resource Book for California Maps, Pages 18, 19, 22-24.
2. Richards, Our California Today, Pages 33-65.
3. Richards, Our California, Pages 141-144.

Early Industrial Development

1. Discuss manufacturing history of the state.
2. Discuss why some men profited more in business and in industry than in the gold fields.
3. Locate gas service lines and power transmission lines on Gunter Map #7 and see if these indicated good areas for industrial development.
4. Make charts showing industrial development in the first quarter of the 20th Century. (Food processing, clothing manufacture, and movie production.)
5. Suggested Readings:
 1. Richards, Our California Today, Pages 201-221, 141-157.
 2. Richards, Our California, Pages 88-90, 130-132.

Large Population Centers

1. Discuss the problems of cities.
2. Discuss reasons of growth of each of these cities and when it occurred.
3. Discuss experiences of children in each of these cities.
4. Write for brochures and other information.
5. Make strips of pictures collected. Write reports to accompany these pictures when shown on the opaque projector.
6. Make scrapbooks of reports, pictures, and other materials collected and organized.
7. Have exhibit of materials, present reports and creative art work to parents or another class.
8. Suggested Readings:
 1. Gunter, California Maps Resource Book.
 2. Lenski, San Francisco Bay.
 3. McNeer, The Story of California.
 4. Peet, First Book of Bridges.
 5. Richards, Our California Today, Pages 41-55.

Other Cities and Towns

1. Discuss the location, size, and significant facts about each city or town.
2. Discuss variety of living and jobs.
3. Discuss problems of water supply.
4. Discuss how to reach each city or town from Santa Clara County.
5. Write to Chamber of Commerce of each city and town discussed.

6. Make a bulletin board display using map, ribbons, brochures.
7. Make a chart of cities studied giving pertinent information for each one.
8. Classify cities according to regions.
9. Plan imaginary tours, taking in interesting places.
10. Organize class scrapbook on California cities and towns.
11. Suggested Readings:
 1. Bailey, Picture Book of California.
 2. Richards, Our California (Locate desired cities and towns in index)
 3. Richards, Our California Today (Locate desired cities and towns in index)

Shifting of Population

1. Discuss problems that arise as cities grow larger; inadequate housing, crowded schools, need for public transportation, traffic problems, etc.
2. On a large wall map of California, locate areas that have few or small towns and areas that have large cities. List reasons for this.
3. Study maps #4, #5, #6, #7 on Gunter series.
4. Make plastic overlays showing relation of population and geography.
5. Collect newspaper articles related to the problems on increasing population.
6. Suggested Readings:
 1. Richards, Our California, Pages 172-174, 240-247.
 2. Richards, Our California Today, Pages 75-86.

Population Growth

1. Discuss how each child's parent happens to be in California; list on chart, illustrate, write captions.
2. Discuss basic needs of all people for food, clothing, shelter as driving force in causing migrations.
3. Arrange a bulletin board with a large map of the world, a cut-out self portrait of each child with string from child's picture to his birth place.
4. On an outline map of the state mark the towns that were established in 1850; in another color mark the cities of 1900; in another color indicate cities over 1,000,000 today.

5. Make a gold rush map, putting on it the names of communities which indicate the many nationalities and races which shared in the search for gold. Write to Columbia Chamber of Commerce for Caricatured Gold Rush Map, 75 cents.
6. Make a time mural showing the growth of California population from early times to the present; write reports and present to another class.
7. Dramatize situations from various immigrations.

8. Suggested Readings:

1. Flower, A Child's History of California, Chapters 21-25.
2. Gunter, California History Maps Resource Book.

People Are Still Coming

1. Discuss how many children's families have recently moved into the community.
2. Discuss the many varieties in landscape, industry, and cities in California.
3. Discuss the meaning of the word population.
4. Plan and make posters advertising the advantages of living in California.
5. Write for and display brochures from Chambers of Commerce.
6. Look in the want ad advertisements for all the jobs and occupations people can have now.
7. Make pictographs showing growth to the communities.

8. Suggested Readings:

1. Peattie, The Pacific Coast Ranges.

III. Visual Aids

Films:

- M-580 - Life in the Hot Dry Lands
- M-586 - Lassen
- M-647 - Life in The Central Valley of California
- M-1362 - Yosemite
- M-1628 - Chaparral - The Elfin Forest
- M-2026 - Death Valley National Monument
- M-1457 - California
- M-643 - Seaports of the Pacific Coast
- M-2292 - Trucking
- M-457 - Westward Movement

Filmstrips

- F-3332 - Physical Environment of California's Land and People
- F-2662 - Geography of American Peoples--Valleys and Coast Lands of California
- F-3336 - Calif. Land and People--Physical Environment; Location, Landforms; Underlying Rocks and Minerals

F-3335 - California Climate
F-1482 - History of California Transportation
F-3337 - Highways
F-1480 - History of California, San Francisco in the
1840's

Pictures

P. 15 - California Scenery
P. 149 - California Desert
P. 173 - The Face of the Land
P. 94 - Transportation
P. 150 - California Today

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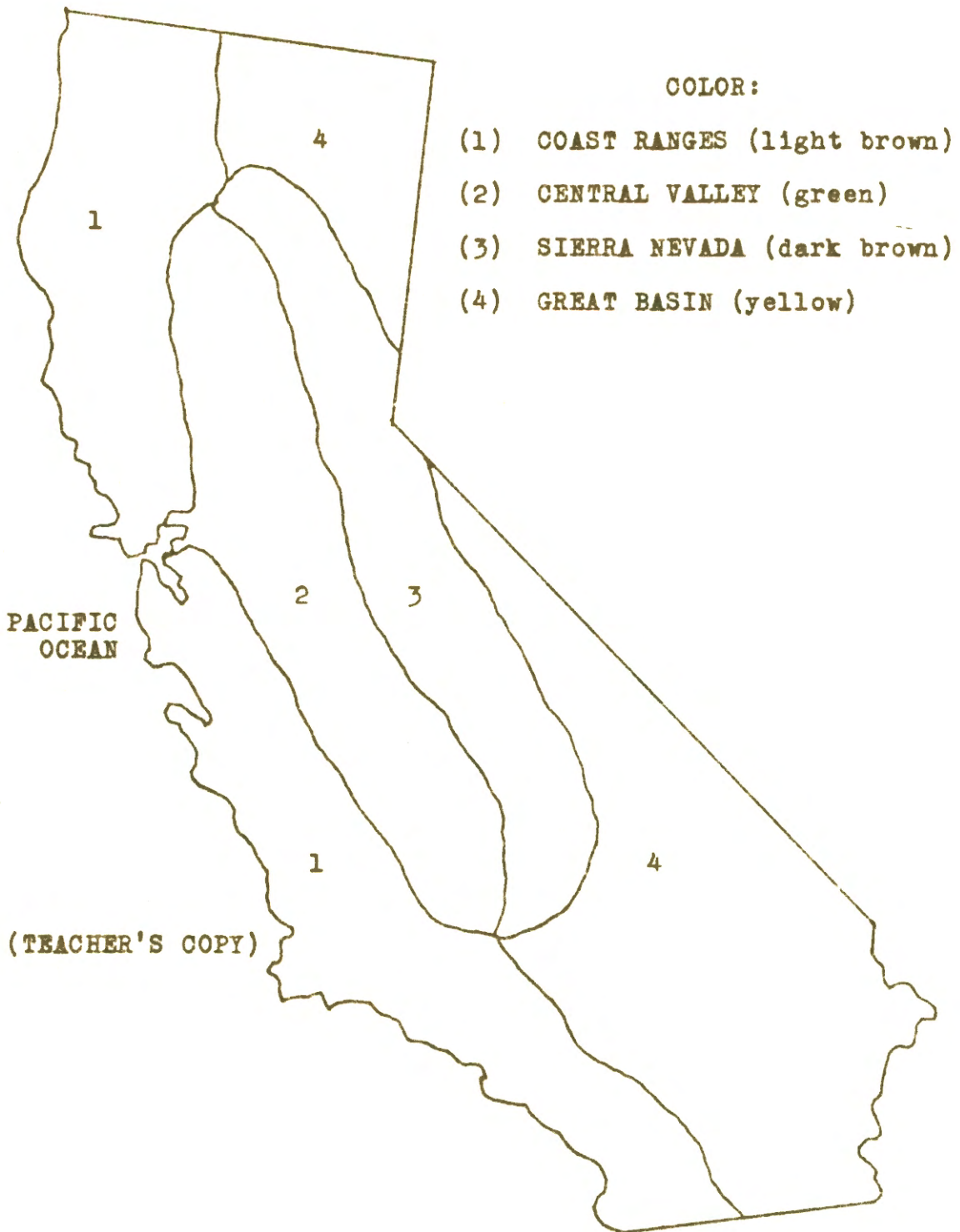
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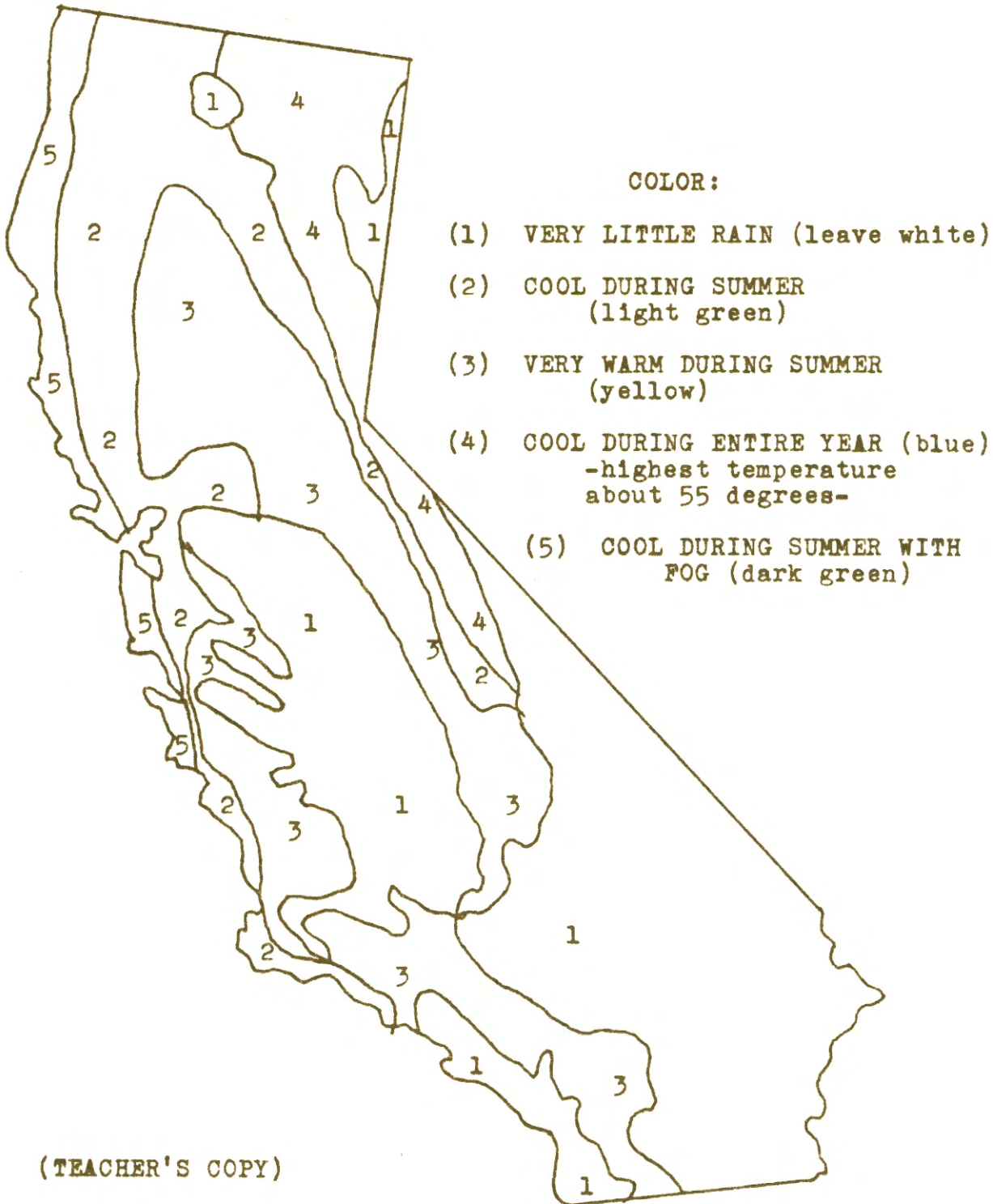
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LAND FORM REGIONS OF CALIFORNIA



CLIMATIC REGIONS OF CALIFORNIA



(TEACHER'S COPY)

APPENDIX C

"T" FORMAT

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PREFACE

It is the purpose of these formats to give you, as teachers, an idea of the various methods that can be used in writing a resource unit. The material presented is but the embryo of a much larger resource unit on Modern California. The same amount of material appears in each format, but owing to the physical arrangement of the formats, differences in length resulted.

It is assumed that a complete Resource Unit on Modern California would include sections on appraisal and evaluation. These sections could appear at the end of the unit or at the end of each section as the writers see fit.

OBJECTIVES FOR RESOURCE UNIT ON MODERN CALIFORNIASKILLS

1. To develop skills in group work
 - a. Being good members of the group
 - b. Conforming to group standards
 - c. Participating in group discussion
 - d. Sticking to the point
 - e. Disagreeing in a friendly way
 - f. Learning to summarize and generalize

2. To develop study skills
 - a. Accurate observation
 - b. Use of index and table of contents to locate material which they wish to read
 - c. Gathering facts from various materials
 - d. Reading accurately to answer questions and follow directions
 - e. Understanding and using globes and maps

3. To develop creative skills
 - a. Speech
 - b. Art
 - c. Dance
 - d. Written expression
 - e. Dramatic play and dramatization

KNOWLEDGES AND UNDERSTANDINGS

1. To develop knowledge of---
 - a. The four regions of California; sea coast, valleys, mountains, deserts
 - b. Relation of California to adjoining states and countries, to the United States, and to the world
 - c. Climates of California, and reasons for their great variety
 - d. Major mountain ranges; Sierra Nevada, Coast Ranges; Mountain Peaks; Mt. Lassen, Mt. Shasta, Mt. Whitney
 - e. Major rivers; Sacramento, San Joaquin, Colorado, others important in regions studied
 - f. Other bodies of water; Pacific Ocean, Lake Tahoe
 - g. Important cities and reasons for their location and growth
 - h. Natural resources of California and how they are developed for man's use

2. To develop understandings of---the problem solving methods---
 - a. Identifying and stating problem of individual or group concern
 - b. Securing information related to the particular problem from a variety of sources
 - c. Verifying information
 - d. Organizing information, secured and verified
 - e. Summarizing and drawing conclusions
 - f. Stating and applying generalizations in action appropriate to specific problem
 - g. Judging effectiveness of solution to the problems

ATTITUDES AND APPRECIATIONS

1. To develop an appreciation of---
 - a. The state
 - b. The responsibility for developing, safeguarding and maintaining the good things of California
 - c. The opportunities and challenges of life in California
 - d. The contributions made by various workers to the development of California
 - e. The contributions of the past to Modern California
 - f. The contributions of various cultures to California

PROBLEM: To Understand the Location of California

LEARNINGS

1. What are the map reading concepts?
2. What states border California?
3. Where is California's location in relation to the rest of the world?
4. Where is California's location in the United States?
5. Where are the large land and water forms in relation to California?

MATERIALS AND PROCEDURES

READ:

Our California Today, Pages 25-28.
Craig, Science Around You, Pages 40-51.

DISCUSS: Graig, Science Everywhere, Pages 98-115

1. Symbolism of maps and globes
 - a. Color
 - b. Scale
 - c. Latitude
 - d. Longitude
 - e. Cardinal directions
2. Meaning of county, state, United States
3. Physical and political maps.

DO:

1. Draw map of classroom putting in shapes of furniture, re-draw map making the furniture symbols.
2. Make a compass--use it to label walls of the classroom.
3. Use globe--locate the seven continents, oceans, United States, and California.
4. Use political maps of the United States to locate the community,

PROBLEM: To Understand the Location of California

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

- determine latitude, locate other states, and the ocean. Trace routes taken coming to California.
5. Use desk outline maps:
 - a. Label western states
 - b. Pacific Ocean
 - c. Community
 6. Collect kinds of maps--compare and contrast.
 7. Prepare a geographical terms map.
 8. See filmstrips.
 - a. F-3332--California Land and People; Physical Environment; Location of the Land.

PROBLEM: To Know and be Able to Locate Outstanding Physical Characteristics

LEARNING EXPERIENCES

1. What is the basic topography of the state?
2. How does this topography affect plant and animal life as well as human activity?
3. What are the locations of the major physical features in the state?
4. How is each physical feature indicated on a map of California?

MATERIALS AND PROCEDURES

READ:

- Bailey, Picture Book of California.
Disney, The Living Desert.
Pough, All About Volcanoes and Earthquakes.
Richards, Our California Today, Pages 1-28.
Schneider, Far and Near, Pages 2-22, 23-38.
Schneider, Rocks, Rivers, and the Changing Earth. 85-106 (Coast), 61-84 (Mountains), 5-22 (Rivers).

DISCUSS:

1. Four great regions of California, coast, mountains, rivers, valleys, deserts.
2. Major mountains, coast ranges, Sierra Nevada, Lassen Peak, Mt. Whitney.
3. Major rivers, Sacramento, San Joaquin, Colorado.
4. Importance of mountains as water shed, as sources of lumber, as determiners of climate, and as recreational areas.
5. How rivers are formed and what they do.

PROBLEM: To Know and be Able to Locate Outstanding Physical Characteristics

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

DO:

1. Find physical features on maps using:
 - a. California Wall Map.
 - b. Gunter Map Set.
 - c. Our California Today, Pages X, Pages 1-13.
2. Make scrapbook of California scenery.
3. Make dioramas showing plant and animal life of regions studied.
4. Add new terms and symbols to geographical terms chart.
5. Locate physical features on individual desk maps.
6. Do experiments as given in Schneider reference.
7. Make a papier-mache map of California on a large piece of plywood: other materials that could be used are green or yellow plasticeen clay.
8. Mathematically find the difference between the height of Mount Whitney and the depth of Death Valley.
9. Make a list of places visited by children in the summer. Organize as to region--mountain, desert, coast, central valley.
10. Committees may start a collection of pictures or make a mural to show characteristics of different regions.

PROBLEMS: To Know and be Able to Locate Outstanding Physical Characteristics

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

11. See Santa Clara County films:
 - a. M-580 - "Life in the Hot Dry Lands"
 - b. M-586 - "Lassen"
 - c. M-647 - "Life in the Central Valley of California"
 - d. M-1362 - "Yosemite"
 - e. M-1628 - "Chaparrel - The Elfin Forest"
 - f. M-2026 - "Death Valley National Monument"
12. See Santa Clara County filmstrips:
 - a. F-2662 - "Geography of American Peoples--Valleys and Coast Lands of California"
 - b. F-3336 - "California: Land and People: Physical Environment: Location, Landforms, Underlying rocks and minerals."
13. Use Santa Clara County pictures:
 - a. P. 15 - California Scenery
 - b. P. 149 - California Desert
 - c. P. 173 - The Face of the Land

PROBLEM: To Understand the Climatic Conditions in California

LEARNING EXPERIENCES

1. What is the general climate?
2. Why are there variations in the basic climate?
3. What are the types of climate common in various areas? What are the effects of these climates?

MATERIALS AND PROCEDURES

READ:

1. Encyclopedia for information on ocean currents.
2. Richards, Our California Today, Pages 1-13, 161.
3. Richards, Our California, Pages 204-207, 211, 216, 230, 234-235, 222, 226-227, 237.
4. Schneider, Science in Your Life, Pages 13-33, 143-176.
5. Tannehill, All About the Weather, Pages 230-241.

DISCUSS:

1. The effect of high mountains in causing rain.
2. What California might be like without the westerly winds and ocean currents that exist.
3. Discuss the influences on California climate--
 - a. California Current
 - b. Japanese Current
 - c. Prevailing Winds
 - d. Mountain Ranges
 - e. Latitude and Altitude

PROBLEM: To Understand the Climatic Conditions in California

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

4. How our homes, clothing, and living habits would change if we lived in other climatic regions.
5. Weather patterns in your locality; most typical features of local climate.

DO:

1. Write to the Climatologist, United States Weather Bureau Office, San Francisco for information on California's climate. Get weather maps, rainfall data.
2. Report to another class on the currents and prevailing westerly winds.
3. Use colored chalk or grease crayon on globe or wall map of the world to show the currents.
4. Locate areas of different climates on a wall map.
5. Make a daily record of weather phenomena and their changes. From your observations try to discover patterns of weather change such as alternating dry and rainy weather, clear and cloudy weather, temperature changes, sequence of cloud types with the approach and passage of a storm, changes in the weather as seasons change.

PROBLEM: To Understand the Climatic Conditions in California

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

6. Make plastic overlays showing relationship of climate areas, topography, cities.
7. Write the Chamber of Commerce in various climatic areas for brochures. Note comments on climate. Are the comments always accurate?
8. Make a movie showing scenes in various climatic areas. Write sales talks for each, listing the advantages of living there.
9. See films:
 - a. M-1457 - California
10. See filmstrips:
 - a. F-3335 - California Climate

PROBLEM: To Locate Important Man-made Contributions to the Map

LEARNING EXPERIENCES

1. What is the symbol used for each of these?

MATERIALS AND PROCEDURES

READ:

Richards, Our California, Page 172
Richards, Our California Today, Pages 33-65, 163-178.

DISCUSS:

1. Major cities of the state.
2. How geography affected the location of each one of these man-made contributions to Modern California.
3. Major dams, railroads, highways.

DO:

1. Locate listed and other important places using desk outline maps and Gunter maps #6 and #7.
2. Play "Twenty-Questions," using point to be located on a wall map.

PROBLEM: To Understand how Methods of Transportation and Communication
have Developed

LEARNING EXPERIENCES

1. What means were used during California's first years.
2. What part did shipping play in California's development?
3. How have the railroads contributed to California's growth?
4. How have highways grown in importance?
5. What recent developments have speeded up transportation and communication.

MATERIALS AND PROCEDURES

READ:

1. Gunter, Resource Book for California Maps, Pages 18, 19, 22-24.
2. Richards, Our California Today, Pages 33-65.
3. Richards, Our California, Pages 141-144.

DISCUSS:

1. Difficulties of travel in early days.
2. Relative costs of each type of transportation.
3. Why has shipping often been cheaper?
4. Why railroads were needed if agriculture was to expand.
5. Importance of railroads before World War I compared with their significance now.
6. Why International Airport is important to Santa Clara County.
7. Our family cars, their purposes, how our lives would be changed without them.
8. Reasons for great importance of highway transportation in California.

PROBLEM: To understand how Methods of Transportation and Communication have Developed

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

DO:

1. Dramatize problems encountered in building the telegraph line and the trans-continental railroad.
2. Make a timetable that might have been used by a passenger traveling on the stage from Missouri to San Francisco.
3. Set up a model telegraph and practice sending codes.
4. Make a scrapbook of pictures of 19th century sailing and steam vessels.
5. List items that could have been used in the cargoes of ships arriving and departing from San Francisco.
6. On Gunter Map #5, find the Central Pacific route over the Sierras.
7. Make lists of materials carried out of California by railroads fifty years ago and now; also list materials carried into California fifty years ago and now.
8. Using a highway map, plan a summer trip and figure out the mileage.
9. Compare time schedules of trains and planes between California and out of state airports. Figure amounts of time saved by businessmen on freight through use of airways.

PROBLEM: To Understand how Methods of Transportation and Communication
have Developed

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

10. Act out early ways of transporting good and communicating with others. Act out modern ways of transporting goods and communicating with others.
11. See films:
 - a. M-643 - "Seaports of the Pacific Coast"
 - b. M-2292 - "Trucking"
12. See filmstrips:
 - a. F-1482 - "History of California Transportation"
 - b. F-3337 - "Highways"
13. See pictures:

P. 94 - Transportation

PROBLEM: To Understand California's Early Industrial Development
and the Reason for It

LEARNING EXPERIENCES

1. What two essentials must we have before we can establish good industry?
2. What were some of the state's early industries?
3. How did World War II make a difference in industry?

MATERIALS AND PROCEDURES

READ:

Richards, Our California, Pages 88-90, 130-132.
Richards, Our California Today, Pages 201-221, 141-157.

DISCUSS:

1. Why manufacturing began so early in the history of the state.
2. Why some men profited more in business and in industry than in the gold field.

DO:

1. Locate gas service lines and power transmission lines on Gunter Map #7 and see if these indicate good areas for industrial expansion.
2. Make charts showing industrial development in the first quarter of the 20th Century (Food processing, clothing, manufacture, and movie production.)
3. See Santa Clara County Filmstrip: F-3334

PROBLEM: To Find Out about the Large Population Centers in California;
San Diego, San Francisco, and Los Angeles

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

READ:

Richards, Our California Today, Pages
41-55.

Gunter, California History Maps Resources.

Lanski, San Francisco Bay.

McNeer, The Story of California.

Peet, Book of Bridges.

DISCUSS:

1. Problem of cities.
2. Reasons for growth of each of these cities and when it occurred.
3. Experiences of children in each of these cities.

DO:

1. Write for brochures and other information.
2. Make strips of pictures collected. Write reports to accompany these pictures and other materials collected and organized.
3. Make scrapbooks of reports, pictures and other materials collected and organized.

PROBLEM: To Find Out about the Large Population Centers in California;
San Diego, San Francisco, and Los Angeles

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

4. Have exhibit of materials, present reports and creative art work to parents or another class.
5. See filmstrips:
 - a. F-1480 - History of California, San Francisco in the 1840's.

PROBLEM: To Find Out about Other Cities and Towns in California

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

READ:

Bailey, Picture Book of California.
Richards, Our California (Search index)
Richards, Our California Today (Search index)

DISCUSS:

1. Location, size, and significant facts about each city or town.
2. Variety of living and jobs.
3. Problems of water supply.
4. How to reach each city or town from Santa Clara County.

DO:

1. Write to Chambers of Commerce of each city and town discussed.
2. Make a bulletin board display using map, ribbons, brochures.
3. Make a chart of cities studied giving pertinent information for each one.
4. Classify cities according to regions.
5. Plan imaginary tours, taking in interesting places.
6. Organize class scrapbook on California cities and towns.
7. See pictures:
 - a. P. 150 - "California Today"

PROBLEM: To Understand Why Concentration of Population has Shifted
From North to South

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

READ:

Richards, Our California, pages 172-177,
240-247.
Richards, Our California Today, pages
75-86.

DISCUSS:

1. Problems that arise as cities grow larger; inadequate housing, crowded schools, need for public transportation, traffic problems, etc.

DO:

1. On a large wall map of California, locate areas that have few or small towns and areas that have large cities. List reasons.
2. Study maps #4, 5, 6, 7 of Gunter series.
3. Make plastic overlays showing relation of population to geography.
4. Collect newspaper articles related to problems of increasing population.

PROBLEM: To Learn How the Tremendous Population Growth of California
has Occurred

LEARNING EXPERIENCES

1. Who are the people in California today?
2. When did they come?
3. Why did they come?
4. How did they get here?

MATERIALS AND PROCEDURES

READ:

Flower, A Child's History of California,
Chapters 21-28.
Gunter, California History Maps Resource.

DISCUSS:

1. How each child's parents happen to be in California; list on chart, illustrate, write captions.
2. Basic needs of all people for food, clothing, shelter, as driving force in causing migrations.

DO:

1. Arrange a bulletin board with a large map of the world, a cut-out self portrait of each child with string from each child's birthplace to his picture.
2. On an outline map of the state, mark the towns that were established in 1850; in another color mark the cities of 1900; in another color indicate cities over 100,000 today.

PROBLEM: To Learn How the Tremendous Population Growth of California
has Occurred

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

3. Make a gold rush map, putting on it the names of communities which indicate the many nationalities and races which shared in the search for gold. Write to the Columbia Chamber of Commerce for Caricatured Gold Rush Map, 75 cents.
4. Make a time mural showing the growth of California population from early times to the present; write reports and present to another class.
5. Dramatize situations from various immigrations.

PROBLEM: To Understand Why People are Still Coming to California

LEARNING EXPERIENCES

MATERIALS AND PROCEDURES

READ:

Peattie, The Pacific Coast.

DISCUSS:

1. How many children's families have recently moved into the community.
2. The many varieties in landscape, industry, and cities in California.
3. Meaning of the word "population."

DO:

1. Plan and make posters advertising the advantages of California.
2. Write for and display brochures from Chambers of Commerce.
3. Look in the want advertisements for jobs and occupations people can have now.
4. Make pictographs showing growth of the communities.
5. See film:
 - a. M-457 - "Westward Movement"
6. See filmstrip:
 - a. F-3332

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APPENDIX D

EVALUATION FORM

 FORMAT

FORMAT EVALUATION

Directions: Please indicate in the right hand column:
 (+) denotes strength, (-) denotes weakness.

I. Clarity:

- A. Objectives stated clearly.
- B. Content clearly defined from objectives.
- C. Content stated clearly.

II. Organization of Material:

- A. User is able to easily correlate learnings with activities.
- B. Objectives conveniently placed in unit.
- C. Resources conveniently placed in unit.
1. Readings
 2. Visual Aids
 3. Activities
- D. Format column headings fully explain themselves.

III. General Considerations:

- A. Format provides a clear picture of the material to be covered.

IV. Elaboration of Weaknesses:

(If you felt this format was weak in any of these areas, please state your reasons.)

- A. Clarity: _____

B. Organization of material: _____

C. General Considerations: _____

FORMAT EVALUATION

After your evaluation of these formats, which would you choose in writing a resource unit on Modern California? _____