

A SURVEY IN MAP STUDY SKILLS OF SIXTH GRADE
STUDENTS AND TEACHERS

by

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TABLE OF CONTENTS

VITA	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF GRAPHS AND CHARTS	vi
ABSTRACT	vii

Chapter	Page
1. INTRODUCTION	1
Statement of the Problem	2
Need for the Study	2
Questions to be Answered	3
General Procedures	4
Limitations	5
Delimitations	5
Definition of Terms	5
Summary	6
2. REVIEW OF LITERATURE	8
Teacher Effectiveness	8
Effectiveness of Materials and Methods	12
Summary	14
3. PROCEDURES	16
Instrument	16
Population and Sampling Procedure	17
Specific Procedures	17
Categories of Study	18
Method of Organizing Data	19
Questions to be Answered	19
Statistical Hypotheses	20
Analysis of Data	20
Precautions Taken for Accuracy	21
Summary	21

Chapter	Page
4. ANALYSIS AND RESULTS	22
Analysis	22
Analysis of Graphs	28
Results	30
5. SUMMARY AND CONCLUSION	33
Conclusion	34
BIBLIOGRAPHY	35
APPENDICES	37
Appendix A	38
Appendix B	124

LIST OF GRAPHS AND CHARTS

Graphs	Page
I - Map Skills as Tested in the Iowa Test of Basic Skills Booklet, Classroom I	24
II - Map Skills as Tested in the Iowa Test of Basic Skills Booklet, Classroom II	25
III - Map Skills as Tested in the Iowa Test of Basic Skills Booklet, Classroom III	26
IV - Map Skills as Tested in the Iowa Test of Basic Skills Booklet, Total Student Population . . .	27
Charts	
I - Grade Equivalents of Teachers on the Iowa Test of Basic Skills	29

ABSTRACT

The purpose of this study was to determine in what areas of map study skills students were most proficient and to identify areas of deficiency. This study was also created to show whether or not the length of time a teacher had been teaching influenced the teacher's map skills abilities.

Ninety-one sixth grade students from one elementary school in Great Falls, Montana, constituted the student population. The sixth grade teachers from one elementary school in Great Falls constituted the teacher population.

The test data was collected from the Iowa Test of Basic Skills which was administered in September, 1977.

The general conclusions were: (1) Three-fourths of the students tested did have deficiencies in map study skills, and (2) The number of years of teaching experience did not effect the map study skills abilities of the teacher.

After the deficient areas of map study skills were identified, a map study skills unit was created as a supplementary unit to the social studies textbook. This unit was designed to help eliminate those areas of map study skills which were shown to be deficient by the Iowa Test of Basic Skills.

Chapter 1

INTRODUCTION

Introduction

In this day and age map reading is a fundamental skill which is applied to everyday living and in occupational performances. Map skills, when properly applied, are used to interpret why industries, farms, natural resources, recreation areas, or tourist attractions are located where they are. Maps are also used in weather prediction and statistical analysis by large industries to explain the why and where of sales fluctuations. In a world where transportation and moving take place at a rapid rate, the ability to use a map with accuracy has become a requirement in many peoples' daily lives.

The basic skills for map reading are taught in the elementary schools. Children are expected to have a basic knowledge of map skills by the time they complete the sixth grade.¹ The map interpretation skills of junior high and high school students have their basis in elementary education.

¹George F. Howe, "A Study of the Ability of Elementary School Pupils to Read Maps," National Society for the Study of Education, XXXII (1933), 486.

In our society there are students leaving the elementary school who have not acquired the map skills necessary to compete in today's map oriented society.² This lack of ability can handicap students in further education and can possibly put them at a disadvantage in future occupational responsibilities.

Statement of the Problem

The purpose of this study is to determine in what areas of map study skills students are most proficient and to identify areas of deficiency. These areas of proficiency and deficiency will be assessed by the Iowa Test of Basic Skills. The study will also show whether or not the length of time a teacher has been teaching influences the teacher's map skills abilities.

Need for the Study

Few studies have been carried out which are either positive or negative in their evaluation of teacher preparedness in map skills. In contrast, studies have shown that students do not have the map study skills needed in

²Duane M. Giannangelo and Bruce M. Frazee, "Map Reading Proficiency of Elementary Educators," Journal of Geography, LXXVI (February, 1977), 63.

today's society. This research will attempt to identify where problems may exist in the teaching and learning of map skills in a Great Falls public school. As a result, teachers may be better able to assess student needs in general map reading skills and identify specific areas where students require more instruction. They may also become aware of their own inadequacies in areas of map study skills.

This study will help to determine the academic preparedness of the elementary teacher in the area of map skills. It may serve as a guide in planning the curriculum for pre-service teachers. For teachers within the school district, this research may lead to informational workshops in the area of map skills or it may demonstrate the need for better methods of teaching map skills in the sixth grade.

This study will help to provide the teachers within the school district information regarding the students' abilities to work with maps. This information will enable the teachers and the district to provide a better map studies curriculum.

Questions to be Answered

As a result of this research, there will be several questions which may be partially or fully answered as they

relate to the particular group of teachers and students involved in this study:

1. In what areas are students weak or strong in the reading of maps?
2. What map study skills should be emphasized in the social studies curriculum to increase the students' abilities in the area of map study skills?
3. Is there a relationship between the teacher's scores and the length of time the teacher has been teaching?

General Procedures

This problem will be investigated in the following manner. The instrument to be used in this investigation will be the Iowa Test of Basic Skills. This instrument will be administered by the principal to all students in grade six in one elementary school in Great Falls, Montana, during the month of September, 1977. On the appropriate day of testing, the teachers in grade six will take the portion of the test on map skills at the same time the students will be tested. The data will then be collected and analyzed by the researcher.

Limitations

1. This study will be limited by the number of students within the school being tested.
2. This study will also be affected by the number of teachers in the building who are teaching sixth grade.
3. Students in this area of town tend to come from professional families in higher socio-economic groups.
4. The number of teachers willing to participate will limit the study.
5. The application and standardization of all testing will be limited by the fact that the elementary principal must conduct all group testing of the Iowa Test of Basic Skills in the school.

Delimitations

1. This study will use only the teachers of grade six.
2. This study will be limited to only the students in the sixth grade.
3. This study will be limited to only one elementary school.

Definition of Terms

1. Elementary school. The elementary school, as used in this research, shall consist of the grades one through

six and shall be considered a public school.

2. Map skills. Map skills are interpreted to include the following:

1. Using map references
2. Interpreting and drawing map scales
3. Reading symbols and keys
4. Interpreting types of maps
5. Filling in outline maps from memory³
6. Using the globe proficiently³
7. Identifying significant and cultural features
8. Calculating of distances
9. Utilizing a coordinate system
10. Determining directions
11. Understanding concepts and principles⁴ associated with climate and land forms⁴

3. Class. The term class, as it will be used in this research, will refer to a heterogenous grouping of sixth grade students in a self-contained classroom where one teacher teaches all subject areas.

Summary

There are practical applications for map reading skills. These skills are taught primarily in the elementary grades with review and practice in junior high and high school.

³Harriett Chace, "Map Skills Developed in Grade Six," Social Education, XX (February, 1956), 60-62.

⁴Norman C. Bettis and Gary A. Manson, "An Assessment of the Geographic Learning of Fifth Grade Students," The Journal of Geography, LXXIV (January, 1975), 14-18.

However, students are leaving the elementary school without mastering the essential map study skills. The purpose of this research will be to attempt to utilize the results of the Iowa Test of Basic Skills to isolate specific areas of map study skills for future improvement in the teaching of map skills to sixth grade students.

Chapter 2

REVIEW OF LITERATURE

Introduction

In reviewing related literature in map study skills in the intermediate grades of four, five, and six, the researcher considered the opinions of professional geographers on elementary education today. Also considered by the researcher were how teachers today effect elementary map study skills and the effect of modern curriculum and materials on the elementary student's abilities in the area of map study skills.

Teacher Effectiveness

In 1975 Eunice Askov and Karlyn Kamm stated that in the nineteenth century there was some instruction in map skills but that in the twentieth century it declined until the 1950's. Then, with the coming of the Space Age, there was a greater emphasis on map education.¹ Haig Rushdoony, in 1963, also claims a greater emphasis on map reading in the last

¹Eunice N. Askov and Karlyn Kamm, "Map Skills in the Elementary School," Elementary School Journal, LXXV (November, 1975), 113.

decade, which would have begun in the early '50's.² Barbara Bartz claims that mapping as a knowing activity is a fundamental value in our culture today.³ George Howe feels that map knowledge should be usable to the student by the time he finishes sixth grade since this is the last time some students will actually be taught the skills as skills.⁴

Most professionals agree that map skills should be taught in elementary school, but many are questioning the results for several reasons. Norman Bettis and Gary Manson administered the Michigan Elementary Geography test to a cross section of 1,689 fifth grade students in 1974 in Michigan. Although their testing did not show why students are not attaining the proper skills, the researchers did draw one conclusion: ". . . if geographic literacy is a goal for elementary education, substantial evidence now exists which

²Haig A. Rushdoony, "Achievement in Map-Reading: An Experimental Study," Elementary School Journal, LXVI (November, 1963), 70.

³Barbara S. Bartz, "Maps in the Classroom," Journal of Geography, LXIX (January, 1970), 18.

⁴George F. Howe, "A Study of the Ability of Elementary School Pupils to Read Maps," National Society for the Study of Education, XXXII (1933), 486.

indicates that goal is not being attained."⁵ We are turning out "geographical illiterates" from our elementary and secondary schools. They went on to question the teacher's knowledge and understanding of geography. Barbara Bartz claims that many children are not prepared to effectively use maps they find in textbooks even though they are receiving formal instruction in maps. "Exposure to materials is not synonymous with comprehension or real use" (Bartz, p. 18). As Harriett Chace points out, "the possession of a skill does not always guarantee a habit of using that skill,"⁶

Several other geographers are also questioning the ability of the elementary teacher. Duane Giannangelo and Bruce Frazee gave the Iowa Tests of Basic Skills with no time limit to 390 elementary teachers, supervisors, and administrators from the mid-South. Using the sixth grade conversion chart for grade-equivalencies, they found the professionals went from the tenth grade sixth month to the second grade fifth month. There were no perfect scores; 34.4

⁵Norman C. Bettis and Gary A. Manson, "An Assessment of the Geographic Learning of Fifth Grade Students," The Journal of Geography, LXXIV (January, 1975), 24.

⁶Harriett Chace, "Map Skills Developed in Grade Six," Social Education, XX (February, 1956), 60.

percent had scores below the sixth-grade level.⁷ After giving the test to fifteen teachers from grades four, five, and six and to a "representative fifth grade," George Howe feels there needs to be a re-education of the teacher. Teachers need to realize the correct use of maps as well as be able to correct old-time instruction and to "lay a foundation for scientific, accurate teaching" (Howe, p. 491). In 1974 the Nystrom Map Skills test was given to 60 teachers, 370 sixth graders, and 22 college seniors in elementary education. In this study all participants rated low, and overall the students scored considerably lower than the teachers (Rushdoony, "Achievement in Map-Reading," pp. 327-331). With this test, the areas of difficulty were the same as on other tests, but the extent of skill deficiencies was greater than other research projects. Teachers and students had the same problem areas.⁸ Bartz stated that "... teachers are often

⁷Duane M. Giannangelo and Bruce M. Frazee, "Map Reading Proficiency of Elementary Educators," Journal of Geography, LXXVI (February, 1977), 63-65.

⁸Donald O. Schneider, "The Performance of Elementary Teachers and Students on a Test of Map and Globe Skills," The Journal of Geography, LXXV (September, 1976), p. 329, citing Stampfer, "Study of Map Skills"; Bettis and Manson, "Assessment of Geographic Learning," p. 23; Sister M. Stephanie Zimmer, "A Diagnosis of Map Skill Deficiencies in Elementary School Children" (Ph.D. diss., Catholic University of America, 1967).

inadequately trained" (Bartz, p. 18). Rushdoony, in 1971, stated that ". . . if we are to have a greater understanding of blending or uniting perception, map, and child that we will need to reexamine the preparation of the elementary teacher."⁹ Since the teacher has the ability to blend map skills to child growth and development and the geographer has the knowledge of maps, the "ideal may well be to have a teacher who is equally prepared and experienced in both geography and elementary education" (Rushdoony, "Geographer, Teacher, and Child's Perception," pp. 432-433).

Effectiveness of Materials and Methods

Teacher preparation and ability is not the only area under close scrutiny--so is curriculum development and the materials being used. Askov and Kamm stated that even though there is more emphasis on maps, little attention is given to developing an organized curriculum for the map-reading skills. "Teaching of the skills has been incidental rather than systematic" (Askov and Kamm, p. 115). The textbooks for the lower grades give instruction in skills, but those instructions require skills the students haven't had

⁹Haig A. Rushdoony, "The Geographer, the Teacher, and a Child's Perception of Maps and Mapping," The Journal of Geography, LXX-LXXI (October, 1971), p. 433.

yet (Askov and Kamm, p. 115). Bartz claimed most materials pertaining to maps for the elementary student are inadequate as well as erroneous and misleading. Even though social studies textbooks contain pretty maps and more maps than they once did, these maps are lacking in information (Bartz, pp. 18-22). George Howe also believes in a text which has a more careful development of map skills. It takes more than just correlating maps to studies. There should be a specific map vocabulary and better teaching techniques (Howe, pp. 492-493).

Blaut and Stea, using 80 children between the ages of three and six, demonstrated that when using a developmental form of teaching, even three-year-olds have the ability to learn basic map skills.¹⁰ Rushdoony also feels that "children can and do learn many concepts and skills at an early age when taught developmentally, systematically, and functionally" (Rushdoony, "Geographer, Teacher, and Child's Perception," pp. 430-431). The Wisconsin Design is based on the thought that map skills are most effectively learned by a systematic study of interrelated skills rather than by

¹⁰J. M. Blaut and David Stea, "Mapping at the Age of Three," The Journal of Geography, LXXIII (October, 1974), pp. 5-9.

incidental isolated skills. The skills should accompany basic concepts in order to hold the student's interest. (Askov and Kamm, pp. 117-120) When systematic development in a map study course is used, it should simplify the study so that problems may be approached in a logical, leisurely method (Howe, p. 491). In 1963, Haig Rushdoony conducted an experiment teaching a systematic map study course of fourth and fifth grade material to 120 third graders for 15 weeks. The results clearly demonstrated that primary children have the ability to learn map skills when the map studies are geared to students' interests, texts, curriculums, and to the children's growth and development. This is a systematic and developmental program (Rushdoony, "Achievement in Map-Reading," pp. 70-75).

Summary

There was little emphasis on learning map skills previous to 1950. However, research has shown that the study of map skills has had great emphasis in elementary education since the advent of the Space Age in the 1950's. Although there is a greater emphasis in the study of map skills, the effectiveness of emphasizing these skills does not seem to increase the abilities of the students.

The lack of students' abilities can be caused by one of two reasons or possibly by a combination of both:

1. The lack of knowledge or preparation in our elementary teachers is one possibility suggested by professional people in the field of geography.

2. Inadequate teaching materials and the lack of a systematic teaching curriculum is the second possibility for the lack of students' abilities.

In order to correct this sag in the elementary teaching curriculum, it is going to take time.

Although criticism is easy, it is not enough. If maps and map-related skills are truly valuable in contemporary American society, and if it appears that such skills are not being adequately learned by a sizable proportion of our population during the elementary school years, then there is need for a change. As we have shown, there is a complex set of people relationships that affect the classroom map, and change can never come all at once from any segment of the system (Bartz, p. 23).

Chapter 3

PROCEDURES

Introduction

As the review of literature has shown, there have been several studies in the area of map skills as it relates to elementary students and their teachers. However, none of these studies have shown in what areas the elementary student is lacking in map skills abilities. This study has been undertaken to locate and improve weak areas in the curriculum of map study skills.

In this chapter the researcher discusses the instrument, research procedures, population, questions to be answered, statistical hypotheses, analysis of the data, and the precautions for accuracy.

Instrument

The basic instrument to be used for gathering data for this research will be the Iowa Test of Basic Skills. The Buros Book of Mental Measurements gives reliability coefficients for this test as being .84 to .96 for major tests and .70 to .93 for subtests. The composite reliabilities

for the whole test range from .97 to .98.¹

The map study skills section of this test contains thirty-nine multiple choice questions with a thirty minute time limit.²

Population and Sampling Procedure

The student population for this investigation will consist of all sixth grade students within one school; the teacher population will consist of all sixth grade teachers within one school. Both the student and teacher populations will be found in one elementary school in Great Falls, Montana, in September, 1977. Because the test will be given to all of the sixth grade students and teachers in one school, there will not be a sampling procedure.

Specific Procedures

The principal will administer the Iowa Test of Basic Skills to all of the sixth grade students and their teachers on the same day, at the same time, and in the same month

¹Oscar Krisen Buros, The Fifth Mental Measurements Yearbook, (Highland Park, New Jersey: The Gryphon Press, 1959), pp. 30-31.

²E. F. Lindquist and A. N. Hieronymus, Iowa Tests of Basic Skills--Teachers' Manual (Boston: Houghton Mifflin Company, 1964), p. 40.

(October, 1977). All participants will be given the same length of time. In addition, the teachers will be asked to provide information as to how long they have been teaching. Test booklets will be collected at the end of the time limit. The tests will be computer corrected and scored.

Categories of Study

The teachers will be placed in categories according to the number of years they have taught.

All the students in this study will be considered as one category.

The map skills will be divided into categories listed in the Teacher's Guide for Administration, Iowa Tests of Basic Skills.³

1. The ability to determine direction from parallels and meridians
2. The ability to determine direction of river flow or slope of land
3. The ability to locate and/or describe places on maps and globes through the use of a key
4. The ability to locate and/or describe places on maps and globes through the use of standard symbols

³Teacher's Guide for Administration, Iowa Tests of Basic Skills, cited by Duane M. Giannangelo and Bruce M. Frazee, "Map Reading Proficiency of Elementary Educators," *Journal of Geography*, LXXVI (February, 1977), 64.

5. The ability to locate and/or describe places on maps and globes through the use of distance and/or direction
6. The ability to locate and/or describe places on maps and globes through the use of latitude and longitude
7. The ability to determine distances on a road map
8. The ability to determine distances using a scale of miles
9. The ability to determine distances on a globe
10. The ability to compare distances
11. The ability to determine routes of travel
12. The ability to understand seasonal variations, sun patterns, and time differences
13. The ability to read and compare facts from one or more pattern maps
14. The ability to visualize landscape features
15. The ability to infer man's activities or way of living from outline maps
16. The ability to infer man's activities or way of living from pattern maps

Method of Organizing Data

The data will be organized and presented in charts and line graphs.

Questions to be Answered

As a result of this study there will be several

questions which may be answered fully or partially as they relate to this group of students and teachers.

1. In what area(s) are students weak in the reading of maps?

2. In what area(s) are students strong in the reading of maps?

Statistical Hypotheses

1. There is no relationship between the scores of the teachers and the scores of the students in the area of map reading ability in the Iowa Test of Basic Skills.

2. There is a relationship between the scores of the teachers and the scores of the students in the area of map reading ability in the Iowa Test of Basic Skills.

3. There is no relationship between the teacher's scores and the length of time the teacher has been teaching.

4. There is a relationship between the teacher's scores and the length of time the teacher has been teaching.

Analysis of Data

The questions of this research will be analyzed by using percentages and presenting the data in charts and graphs.

Precautions Taken for Accuracy

The test will be administered by the principal and all individuals will be tested at the same time and under the same conditions. The tests will be computer corrected. The results used in the analysis will be computed by using a hand calculator, and all calculations will be double checked by researcher.

Summary

This investigation will involve the use of the Iowa Test of Basic Skills in order to obtain information on the abilities of sixth grade teachers and their students in map study skills. The test will be given to all sixth grade teachers and students in one school in Great Falls, Montana.

The results of this study will help the teachers recognize their own strengths and weaknesses in teaching map study skills.

The actual data from this investigation will be presented in Chapter 4.

Chapter 4

ANALYSIS AND RESULTS

The Iowa Test of Basic Skills was administered in September, 1977, to ninety-one sixth grade students and to three sixth grade teachers. They were all given the test at the same time and under the same conditions. This chapter presents the results and a summary of the map skills section of the Iowa Test of Basic Skills.

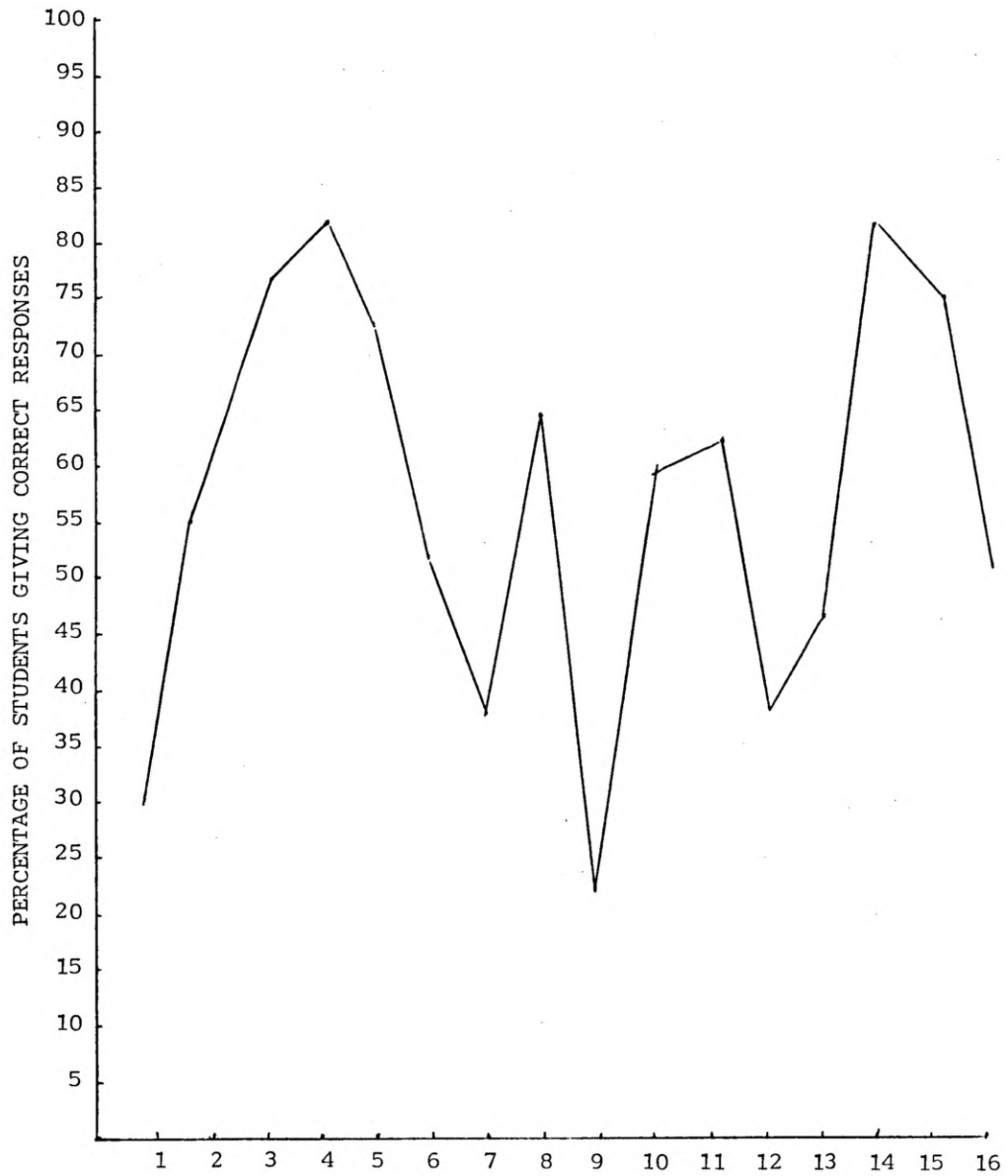
Analysis

This test was given to ninety-one students at the beginning of their sixth grade year. Because the tests were administered to sixth grade students in September, they indicate the map skills the students have acquired during the first five years of elementary school.

The following graphs show the results of the test. Graphs I, II, and III show the results in each classroom; Graph IV shows the results of the entire population. Each graph illustrates the percentage of correct responses to the sixteen different map skills tested. These sixteen skills are:

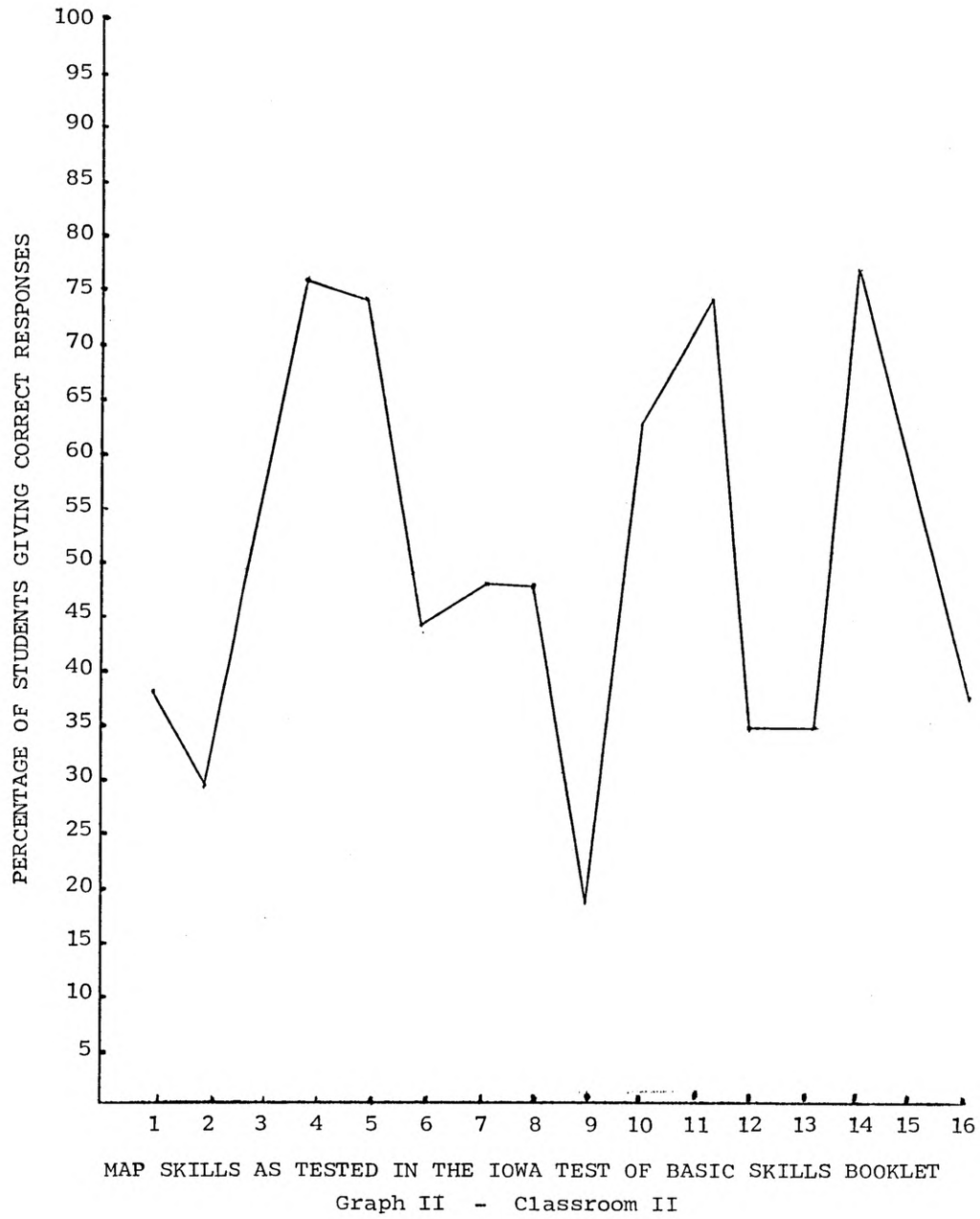
1. The ability to determine direction from parallels and meridians

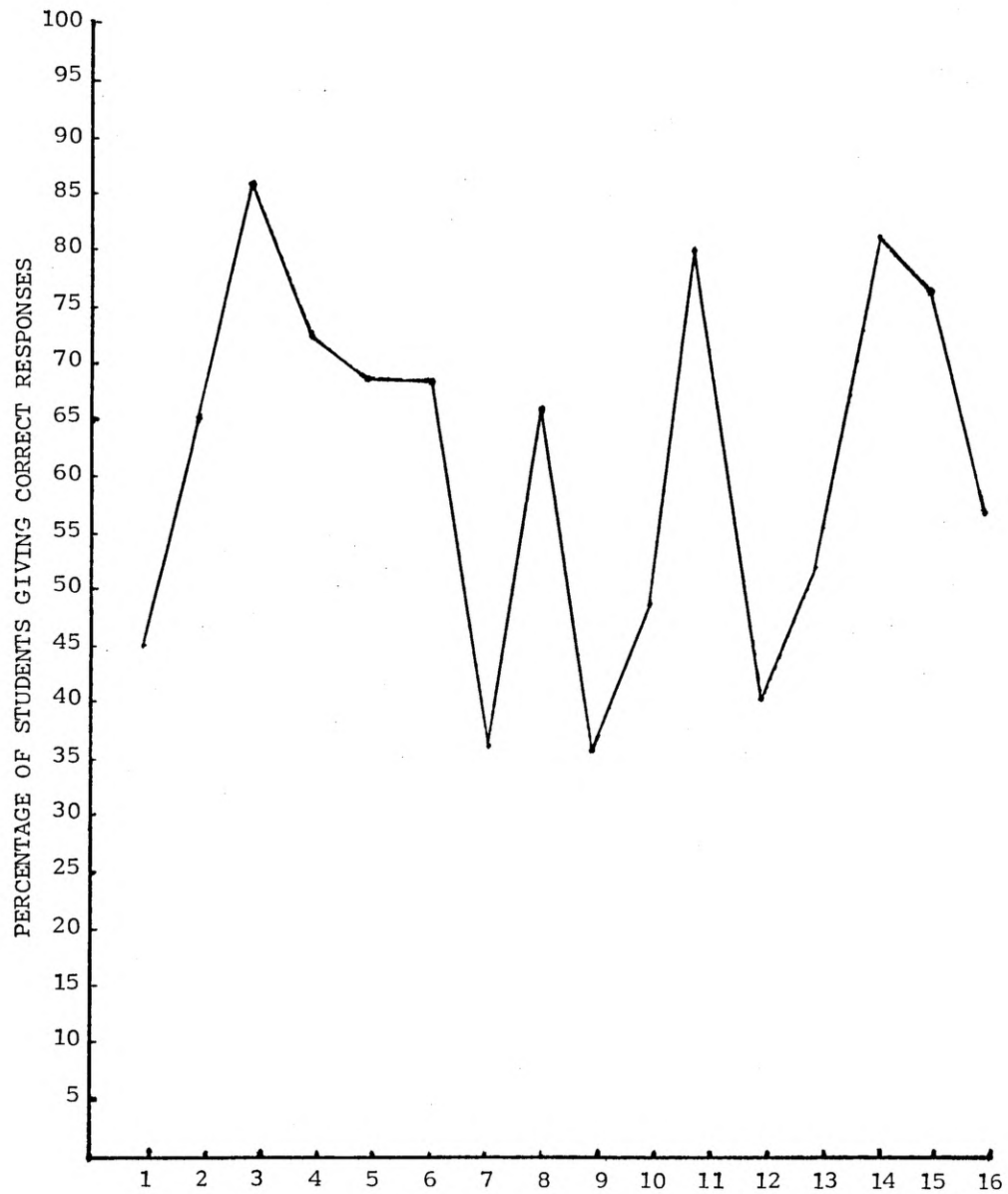
2. The ability to determine direction of river flow or slope of land
3. The ability to locate and/or describe places on maps and globes through the use of a key
4. The ability to locate and/or describe places on maps and globes through the use of standard symbols
5. The ability to locate and/or describe places on maps and globes through the use of distance and/or direction
6. The ability to locate and/or describe places on maps and globes through the use of latitude and longitude
7. The ability to determine distances on a road map
8. The ability to determine distances using a scale of miles
9. The ability to determine distances on a globe
10. The ability to compare distances
11. The ability to determine routes of travel
12. The ability to understand seasonal variations, sun patterns, and time differences
13. The ability to read and compare facts from one or more pattern maps
14. The ability to visualize landscape features
15. The ability to infer man's activities or way of living from outline maps
16. The ability to infer man's activities or way of living from pattern maps



MAP SKILLS AS TESTED IN THE IOWA TEST OF BASIC SKILLS BOOKLET

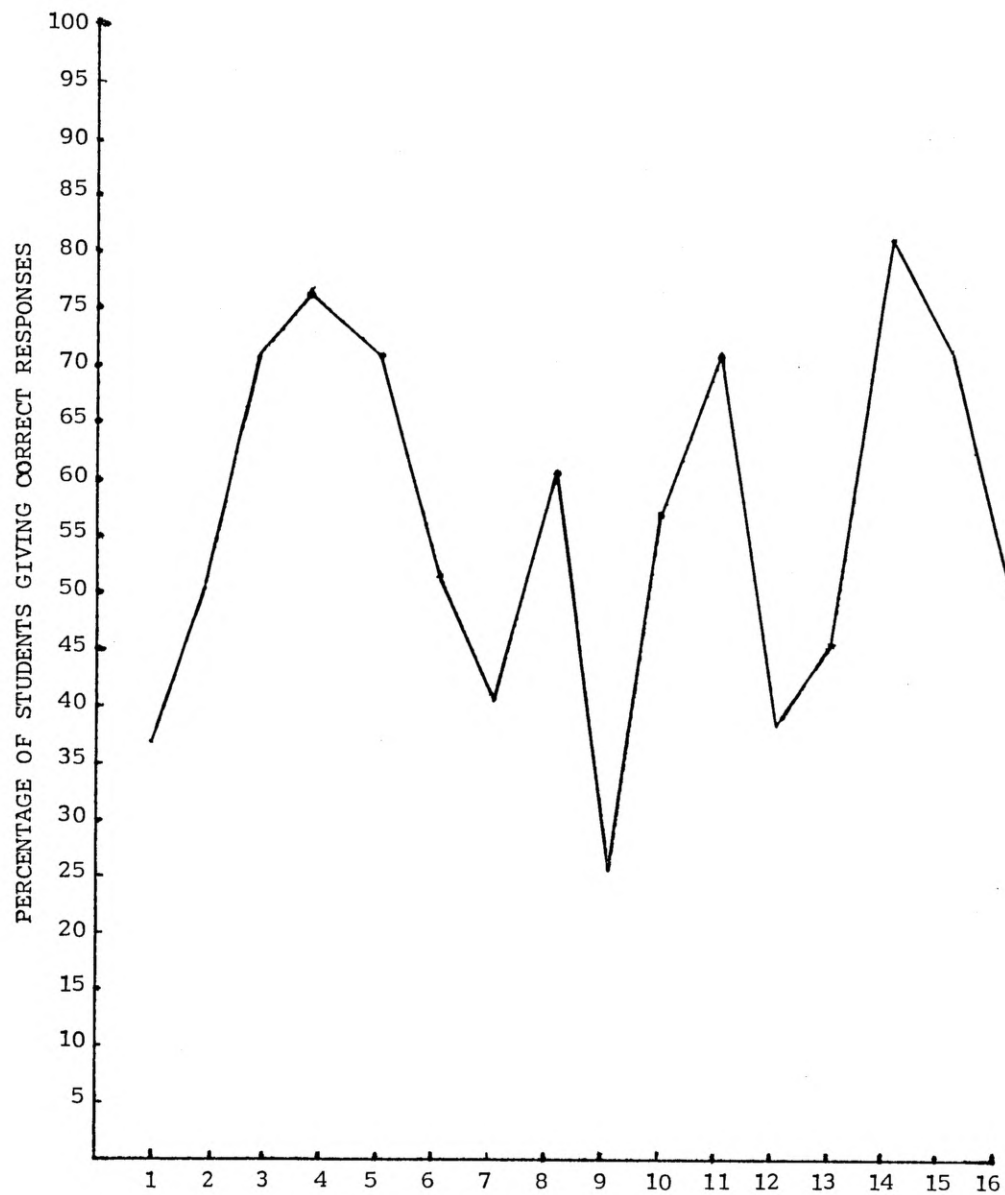
Graph I - Classroom I





MAP SKILLS AS TESTED IN THE IOWA TEST OF BASIC SKILLS BOOKLET

Graph III - Classroom III



MAP SKILLS AS TESTED IN THE IOWA TEST OF BASIC SKILLS BOOKLET

Graph IV - Total Student Population

Analysis of Graphs

Graph I shows that in classroom I the students had 75 percent correct responses on 25 percent of the questions, between 50 and 74 percent correct responses on 37 1/2 percent of the questions, and less than 50 percent correct responses on 37 1/2 percent of the questions. In this class, 75 percent of the questions were answered incorrectly by 3/4 of the students.

Graph II shows that the students had a 75 percent correct response rate to 12 1/2 percent of the questions, 50 to 74 percent correct response rate to 31 1/4 percent of the questions, and less than a 50 percent correct response rate to 56 1/4 percent of the questions. In this class, 87 1/2 percent of the questions were answered incorrectly by 3/4 of the students.

Graph III shows that the students had 75 percent correct responses to 18 3/4 percent of the questions, 50 to 74 percent to 43 3/4 percent of the questions, and less than 50 percent correct responses to 37 1/2 percent of the questions. In this class, 81 1/4 percent of the questions were answered incorrectly by 3/4 of the students.

Graph IV gives the data on the entire class results of the ninety-one students tested. This graph shows that there

was a 75 percent correct response rate to 12 1/2 percent of the questions, between 50 to 74 percent correct response rate to 43 3/4 percent of the questions, and less than a 50 percent correct response rate to 43 3/4 percent of the questions. Based on the total number of students participating, 87 1/2 percent of the questions were answered incorrectly by 3/4 of the students.

Three sixth grade teachers were tested simultaneously with the students. The teachers were given grade equivalent scores based on the sixth grade conversion chart. The following chart summarizes the data of their test scores.

Teacher	Years of Experience	Grade Equivalent	Number of Questions Missed*
1	12	10.9	0
2	9	10.5	3
3	6	10.7	1

*40 questions

The results of the teacher scores show that the number of years of experience does not drastically affect the scores. The teachers tested, although small in number, do have the necessary knowledge and skills in the reading and

understanding of maps in order to adequately teach the children. (This statement assumes that the teachers have the necessary materials and teaching ability.)

Results

Within this particular school the highest percentage of correct responses was 81 percent, and this was in the area of the ability to visualize landscape features. The lowest percentage of correct responses was in the area of distances on a globe and this was a 24 percent correct response rate.

There were only two areas which had at least a 75 percent correct response rate and these were the ability to locate and/or describe places on maps and globes through the use of standard symbols and the ability to visualize landscape features. Of the sixteen possible areas of map study skills, ten had less than a 60 percent correct response rate. These ten areas, in order of highest percentage to lowest, are: the ability to determine distances using a scale of miles (59 percent), the ability to compare distances (57 percent), the ability to determine direction of river flow or slope of land (50 percent), the ability to infer man's activities or way of living from pattern maps (50 percent), the ability to locate and/or describe places on maps and

globes through the use of latitude and longitude (46 percent), the ability to read and compare facts from one or more pattern maps (45 percent), the ability to determine distances on a road map (40 percent), the ability to understand seasonal variations, sun patterns, and time differences (38 percent), the ability to determine direction from parallels and meridians (37 percent), and the ability to determine distances on a globe (24 percent). These low percentages of correct responses in ten of sixteen basic map skills indicates specific deficiencies in map study skills.

The mean percentage of correct responses was 55.68 percent for all sixteen basic map skill areas. The median percentage of all correct responses was 53.5 percent. The mode was 71 percent, and it appeared three times.

These overall scores, along with specific areas of deficiency which were identified, indicated the need for an improved curriculum in map study skills in this school. A map study skills unit, which is supplementary to the social studies text, was designed to help eliminate this deficiency. The primary purpose of the unit was to help increase the students' abilities to read and understand maps in areas in which deficiencies had been recognized by the Iowa Test of Basic Skills. The unit was created to correlate with the

social studies textbook and the different resource materials available within the school and the school district.

The map unit was created with individual sections on basic skills, map vocabulary terminology, contour maps, and individual studies of Alaska, California, the United States as a whole and as sections, and world maps. Where it was possible each section was supplemented with highway maps, dittos reviewing basic skills, student desk maps, overhead projections, and plaster cast relief molds. The types of activities suggested and the types of questions used on the dittos correlating to each section of the unit were specifically used to help increase the students' abilities in map skills. A copy of this map study unit is found in the appendix of this study.

Chapter 5

SUMMARY AND CONCLUSION

In our modern, fast moving society today one of our basic skills in travel, industry, and recreation is the ability to read maps well. The basic skills of reading maps are taught in the elementary school, and the students are expected to have mastered basic map reading skills by the time they enter junior high. However, in recent studies conducted in 1967, 1974, and 1977, the academic preparedness of the elementary student has been declining despite the emphasis of the need for mastery of map skills. Many questions have arisen as to why map reading skills have declined in a modern age of space technology: Do the teachers themselves have the ability to read and translate maps? Do teachers have proper training to teach these skills to the students? Are textbooks written and presented in ways which encourage the learning of map study skills? Are supportive materials adequate to teach the basic concepts needed for map study skills?

This study was created to (1) find out if there was a deficiency in map reading skills within an elementary school in this district, (2) find out in what particular skills of reading maps the students were lacking, and (3) find out if

the teachers were adequately prepared to teach map reading skills.

Conclusion

On the basis of the information provided by the Iowa Test of Basic Skills, the investigator of this study concluded that $\frac{3}{4}$ of the sixth grade students in this school did have a deficiency in the area of map study skills. However, the sixth grade teachers in the same building do have adequate ability in the area of map study skills.

To help overcome this deficiency in the abilities of the students to work with maps, a map study skills unit was prepared by the investigator to be included in the social studies curriculum. This unit was designed to increase those specific areas of map skills which were shown to be deficient by the students who took the Iowa Test of Basic Skills. This unit has since been accepted by the school district and is presently being instituted by the fifth grade teachers of the district to support their social studies program and improve the map skills abilities of their students.

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APPENDICES

APPENDIX A

Map Study Skills Unit

Map Work - Grade 5

- I. Map Skills
 - A. Review and Introduction
 - 1. Dittoed Review of Directions
 - 2. Dittoed Review of Continents
 - B. Latitude and Longitude ("Where and Why" #8 and #9--Nystrom)
 - 1. Dittoed exercises accompanying lesson
 - C. Distortion "Where and Why" #10, #11, #12
 - D. Scale and Measurement ("Where and Why" #13)
 - E. Elevation Studies ("Where and Why" #14, #15, #16)
 - 1. Ditto of Elevations
 - 2. Ditto of Natural Landforms
- II. Map Vocabulary
 - A. Present Denoyer Geographical Terms
 - B. Breakdown of Words
 - C. Methods of Presentations
 - D. Matching Association Quizzes
- III. Alaska
 - A. Alaskan Road Map
 - 1. Accompanying ditto
 - B. Desk Maps
 - 1. Accompanying dittoes (2)
 - 2. Dittoed locations
 - C. Associated Student Activities
 - D. Alaskan Overheads
- IV. Contour Maps
 - A. Examples of in Great Falls Area
 - B. U. S. Contour Desk Maps
 - 1. Dittoed Exercises
 - 2. Student Activities
 - 3. Guest Speaker

Map Work - Grade 5

V. U. S. Map

- A. Desk Maps
 - 1. Dittoed Locations
 - 2. States and Capitals (Dittoes--3)
- B. Raised Relief Study
 - 1. Plaster Cast Molds
 - 2. Dittoed U. S. Review
- C. Related to Language Arts

VI. California Map

- A. Desk Maps
 - 1. Ditto of Locations
 - 2. Dittoed Exercises
- B. Library Research
 - 1. Ditto Review
- C. California Road Map
- D. Overhead Projections

VII. Mexican Map

- A. Locations of Schools to Write to
- B. Desk Maps
 - 1. Ditto of Locations
 - 2. Dittoed Exercises

VIII. World Map

- A. Desk Maps
 - 1. Locations and Elevations
 - 2. Ditto Review Sheet of Material Covered

Review and Introduction

Materials Required:

1. SRA level one, color red--Learning to Read Street and Highway Maps
2. Montana highway maps from Montana Unit
3. Denoyer--Geographical Terms
4. Paper, pencils, and rulers
5. Nystrom Map Symbols and Concepts: #9 Glacier and Crevasse, #23 Butte, #32 Different Map Scales, #36 RR and Highway Symbols

Presentation:

1. What is a legend? Why is it necessary? What information is contained within a legend? What are some symbols found on maps?
2. Why aren't all maps the same size? What makes one map just as accurate as another? What does it mean to have a drawing to scale?
3. Present poster #32 illustrating different map scales and discuss their accuracy and the need of different scales.
4. Present card #36 on RR and Highway Symbols. Why are symbols used instead of the actual drawings?
5. How should we hold a map when trying to locate an area? What do the letters and numbers mean around the edge of the map?
6. Present the list of geographical terms with the Denoyer Map and review the meanings of the terms with the class.
7. Present cards #9 and #23 of basic land forms and discuss the necessity of having symbols for these formations. Both of these formations are found in Montana

Student Activities:

1. Each student will create a map of his own neighborhood--creating his own legend and symbols. All streets, avenues, and directions should be labeled as well as any public utilities.
2. Have each student go through the SRA street and highway maps. For the excellerated student, have him proceed to level two and on to level three at his own rate of competency.
3. Using the Montana highway maps, discuss the meanings of the symbols in the legend. Use the Montana handout as a review of locating points on a highway map. This work will be in more detail in the Montana Social Studies Unit.
4. Have each student make his own flashcards for geographical terms and basic map symbols from legends to be studied during his own free time.
5. Using the rules for a spell-down, have a map-down using geographical terms and locating examples of terminology on a large map in front of the room.
6. Each student will create a scrapbook of pictures cut from magazines illustrating the different terms used for map illustrations. This scrapbook will be kept through the year and added to as each map unit is completed.

Review of Directions

Use the directions north, south, east, or west to fill in the blanks.

1. Cuba is an island _____ of the United States.
2. Alaska is _____ of Canada.
3. The largest part of Africa is located _____ of the equator.
4. Europe is a continent found _____ of Africa.
5. France is _____ of the Mediterranean Sea.
6. The island country of England is _____ of the United States.
7. The Tropic of Capricorn is _____ of the equator.
8. The Antarctic Circle is _____ of the equator.
9. The Tropic of Cancer is $22\frac{1}{2}^{\circ}$ _____ of the equator.
10. Australia is _____ of the equator.
11. The Pacific Ocean is _____ of Mexico.
12. The Pacific Ocean is _____ and _____ of the equator.
13. The Arctic Ocean is _____ of Greenland.
14. The Indian Ocean is found _____ of Africa and _____ of Australia.
15. Greenland is _____ of South America.
16. The country _____ of the Black Sea is Turkey.
17. Florida is a state just _____ of Cuba.
18. The Atlantic Ocean is _____ of North America.
19. Africa and Europe are both on the _____ side of the Atlantic Ocean.
20. Japan is _____ of Australia.
21. In the North American Continent, the Rocky Mountains run _____ and _____ on the map.
22. The Mississippi River runs _____ and _____.
23. The Yukon River found in Alaska runs _____ and _____.
24. The Great Lakes are _____ of Hudson Bay.
25. Hudson Bay is _____ of the Gulf of Mexico and _____ of Alaska.

Continents and Oceans

1. Mexico and the United States are in what continent? _____
2. _____ is the continent where Egypt is located.
3. Spain, France, and Italy are three countries found in the continent of _____.
4. The large continent south of the U. S. is _____.
5. China, India, and Vietnam are found in the continent of _____.
6. The island continent of _____ is found south of the equator.
7. The continent found farthest to the south is _____.
8. There are (how many?) _____ continents.
9. List all the continents: _____, _____, _____, _____, _____.
10. What ocean borders North and South America, Australia, and Asia?

11. What ocean is found east of the United States and west of Africa?

12. What ocean is east of Africa and west of Australia? _____
13. Which ocean is found north of Greenland? _____
14. Which oceans are both north and south of the equator? _____, _____.
15. Which ocean is found both in the eastern and western hemispheres?

16. Which ocean is found only in the western hemisphere? _____
17. Which ocean is found only in the eastern hemisphere? _____
18. Which ocean is only in the northern hemisphere? _____
19. How many oceans are there? _____

Continents and Oceans
Page 2

20. List all of the oceans: _____,
_____, _____.
21. Greenland borders which two oceans? _____
22. Australia borders which two oceans? _____,
_____.
23. Africa borders on which two oceans? _____,
_____.
24. Alaska borders on which two oceans? _____,
_____.
25. Which ocean or oceans does the equator pass through?
_____, _____, _____.

Latitude and Longitude

Materials Required:

1. Where and Why #8 and #9--latitudes and longitudes
2. Globes and raised relief maps of the world
3. Graph paper
4. Learning to Use a Map--A. J. Nystrom and Company
5. Denoyer Geographical Terms
6. Nystrom Map Symbols and Geographical Concepts--cards 40 and 41
7. Nystrom Mid America Program and Landform Study Prints

Presentation:

1. What are some things naturally in nature that are found on a map? Why should these things be included on a map? (Illustrations from Nystrom Mid America Program and Landform Study Prints would be excellent to stimulate discussion.)
2. Using the booklet Learning to Use a Map, pages 5-8, continue a discussion of natural features and have the students write out the answers.
3. Discuss how the vertical and horizontal lines make it easier to locate places on a map. Using the graph paper have each student draw their own grid system. Relate these planes to latitudes and longitudes of a map system.
4. Use Where and Why #8 on latitudes with globes and the accompanying ditto review.
5. Present and discuss the illustration cards 40 and 41 on latitude and longitude and the various zones of the earth.
6. Use Where and Why #9 on longitudes, globes, and the accompanying ditto review.
7. To provide extra practice in working with latitude and longitudes, use the world raised relief maps and the accompanying ditto.
8. To provide extra practice with natural land forms, use the world raised relief maps and accompanying ditto.

Student Activities:

1. Each student will be using the book LEARNING TO USE A MAP and answering the questions on natural land forms, pages, 5-8, and locating places on pages 8-10.
2. Each student will create his own grid system on graph paper and practice locating points on a grid system.
3. Students will continue using vocabulary flashcards and pictures in the scrapbook illustrating the words.
4. Where and Why #8 and #9 give practice in oral directions as well as in written work.
5. Students can play games by having one team give the coordinates and the other team try to locate the place on the map.
6. The two practice sheets will give more practice in specific areas.
7. Divide the room into grid lines and practice locating each other by giving the correct coordinates.

Latitude and Longitude

Use world raised relief maps.

1. The N. latitude $23\frac{1}{2}^{\circ}$ is called the _____.
2. The N. latitude $66\frac{1}{2}^{\circ}$ is called the _____.
3. At which line do we find the Tropic of Capricorn? _____
4. At which line do we find the Antarctic Circle? _____
5. 0° longitude is called the _____.
6. Lines which run north and south on a map are called _____ lines.
7. Lines which run east and west on a map are called _____ lines.
8. For most of the time, the International Date Line is located on which line of longitude? _____

On the following lines, write the name of the country or body of water which would be found at that location.

9. 150° N. latitude, 45° W. longitude _____
10. $23\frac{1}{2}^{\circ}$ S. latitude, 135° E. longitude _____
11. 0° latitude, 60° W. longitude _____
12. 30° N. latitude, 0° longitude _____
13. 15° S. latitude, 15° E. longitude _____
14. 45° N. latitude, 105° E. longitude _____
15. $23\frac{1}{2}^{\circ}$ N. latitude, 75° E. longitude _____

On the following blanks, list the latitude and longitude where these countries can be located.

	<u>latitude</u>	<u>longitude</u>
16. Sweden	_____	_____
17. France	_____	_____
18. Guatemala	_____	_____
19. Argentina	_____	_____
20. Iran	_____	_____

Distortion

Materials:

1. Where and Why #10, 11,12
2. World Raised relief maps, globes
3. Fold out from Nystrom: Mid America Panorama

Presentation:

1. Use the Where and Why #10 as a review of previous materials in working with grid systems. The ditto quiz can be used as a type of evaluation over grid systems.
2. Distortion: Which would you rather use, a map or a globe? Why? Which is probably more accurate? Looking at the flat world map, is Greenland really that big compared to the U. S.? Why is the U.S.S.R. in the left hand corner of the map so much bigger than the same piece of land in the right hand corner? Why are there two Alaskas on the flat map and only one on the globe?
3. Use Where and Why #1 and #12 with the comparison of maps and globes to further extend the distortion study and accuracy of map relations.
4. Fold out the Panorama from Nystrom: Why do the states look longer and narrower than they do on a regular flat map? Why would you want to use a distorted map such as this one?
5. A good art project to correlate with this subject of distortion would be the drawing of caricatures which can be illustrated by cartoons or distorted mirrors which accent certain features.

Student Activities:

1. Where and Why #10 on the grid system.
2. Where and Why #11 and #12 on map distortion.
3. Correlate art projectd related to distortion to give the impression of bigness, caricatures, cartoons, and perspective.

Scale and Measurement

Materials:

1. Where and Why #13
2. Maps and models of planes and cars.
3. Pieces of string or strips of paper.
4. Several different maps with different scales.

Presentation:

1. List some qualities of maps, model airplanes, and model cars which make them accurate and worthwhile to use. How are the size and shape related to the actual object? How is something built to scale? Why do we build scale models before building the actual object (houses, dams, cars, real estate investments)? Are the scales on all maps the same? Why not?
2. Use Where and Why #13 with the ditto practice sheet for practice on both maps and globes.
3. Working in small groups or as individuals, the students will create scale drawings of larger objects--make sure the student is not drawing something too complex.
4. Have each student figure the scale to which the cast molds of Montana were created.

Elevation Studies

Materials Required:

1. Where and Why tapes #15 and 16
2. Nystrom Map Symbols and Geographic Charts #27, 43, 44, 45
3. Plastic cast molds of U. S.
4. Contour Desk Maps of U. S.

Presentation:

1. By looking at a map, how can we tell how high something is? Do all maps have the same color codes? Where is zero elevation? Why do you think we begin at sea level? Why is it important that we know elevations? What occupations depend on knowing elevations and how to read elevation maps?
2. Present Where and Why #15 with accompanying review sheet.
3. Discuss the Nystrom Charts 43, 44, 45 by comparing differences. Why is each kind important? For help check the Where and Why T.M., page 18, lefthand column. Which map or maps is most accurate? Why do you think so?
4. Present Where and Why #16 with accompanying ditto review.
5. Use Nystrom Chart #27 and discuss its relationship to the map of the U. S. Paint or color the plastic casts according to elevation as closely as possible.
6. Ask a geologist, pilot, or weatherman to speak to the class and possibly share some of the maps he used in his particular job.
7. Present the contour desk maps of the U. S. Have each student color in the map using his own color code for elevations. Make sure it is recorded in the legend of each map. Colored pencils work best. Outline each of the states with a black, felt-tip marker and put in the names.

Student Activities:

1. Where and Why activities for tapes #15 and #16
2. Painting of the U. S. plaster casts according to elevation
3. Work on the U. S. contour desk maps
4. Add the new vocabulary to their work list

Natural Land Forms

Use the world raised relief map.

1. What mountains run the length of Chile, Peru, and Argentina?

2. What desert is located in Chile? _____
3. What hills are found at 45° N. lat., 105° W. long.?

4. Name two mountain ranges in Alaska. _____
5. Which sea borders both Sweden and Finland? _____
6. What desert covers northern Africa? _____
7. The Great Victoria Desert is located in what country?

8. The Alps are located in which continent? _____
9. Turkey separates which two seas? _____, _____
10. The Red Sea borders on which four countries? _____
_____, _____, _____
11. Which high mountain range is located mainly in China? _____

12. Mt. McKinley is found on which continent? _____
13. Which mountain range is found in Australia? _____

14. The Ural Mountains are found in which country? _____
15. The Persian Gulf borders on which two countries? _____,
_____.

Name _____

Geographical Terms
Page 2

- | | |
|----------------------|---|
| _____ 1. AIRPORT | A. A slow sluggish stream; usually used to describe inlets from the Gulf of Mexico or from the Mississippi River. |
| _____ 2. ALTITUDE | B. An inlet from the sea or other body of water. |
| _____ 3. ARCHIPELAGO | C. Elevation or height above sea level. |
| _____ 4. ARM | D. 1. An inlet of the ocean or part of the ocean bordering on land and partly surrounded by land. 2. Any small body of water set off from the main body of an ocean, lake, or gulf. |
| _____ 5. ATOLL | E. The pebbly or sandy shore of the sea or of a lake which is washed by the waves. |
| _____ 6. BANK | F. Any broad area of water containing several islands; also such a group of islands. |
| _____ 7. BASIN | G. 1. The steep or sloping border of any stream. 2. An elevation under the sea forming an area of relatively shallow water. |
| _____ 8. BAY | H. A small island the shape of a ring or horseshoe; formed by deposits of coral sea animals. |
| _____ 9. BAYOU | I. 1. A low place in the surface of the land, usually with a body of water occupying the lowest part. 2. The entire area drained by a river system. |
| _____ 10. BEACH | J. A landing, loading, and delivering center for airplanes. |

Name _____

Geographical Terms
Page 2

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|----------------------|---|
| _____ 11. BLUFF | K. A natural stream of running water smaller than a river or a creek. |
| _____ 12. BOG | L. A wall built in water near the shore to break the force of the waves and to provide shelter for boats and ships. |
| _____ 13. BRANCH | M. A small island the shape of a ring or horse-shoe; formed by deposits or coral sea animals. |
| _____ 14. BREAKERS | N. A roadway built over a stream, railroad, chasm, or narrow valley. |
| _____ 15. BREAKWATER | O. Very wet, spongy ground not able to support much weight; usually made up of decayed plants. |
| _____ 16. BRIDGE | P. An inlet from the sea or other body of water. |
| _____ 17. BRINK | Q. A small stream or creek emptying into a larger stream. |
| _____ 18. BROOK | R. A man-made channel filled with water used for navigation, irrigation, or drainage. |
| _____ 19. CANAL | S. A steep, high bank beside a body of water. |
| _____ 20. CANYON | T. Elevation or height above sea leve. |
| _____ 21. ALTITUDE | U. A deep, narrow valley having high, steep slopes. |
| _____ 22. ARM | V. The pebbly or sandy shore of the sea or of a lake which is washed by the waves. |
| _____ 23. ATOLL | W. Waves, breaking into foam as they approach or dash against the shore. |
| _____ 24. BAY | X. The very edge at the top of a bluff, cliff, or precipice. |
| _____ 25. BEACH | Y. 1. An inlet of the ocean or part of the ocean bordering on land and partly surrounded by land. 2. Any small body of water set off from the main body of an ocean, lake, or gulf. |

Name _____

Geographical Quiz
Page 3

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|-------------------|--|
| _____ Cape | 1. An empty, deep gap in the surface of the earth. |
| _____ Cave | 2. The very edge of the top of a bluff, cliff, or precipice. |
| _____ Cavern | 3. A small stream or creek emptying into a larger stream. |
| _____ Channel | 4. A narrow piece of land projecting into the sea. |
| _____ Chasm | 5. A steep, high bank beside a body of water. |
| _____ Altitude | 6. A deep, hollowed-out area under the earth's surface. |
| _____ City | 7. (1) A narrow strip of water. (2) The part of a stream or body of water which affords the best passage for vessels; usually because of its great depth. |
| _____ Bluff | 8. Elevation or height above sea level. |
| _____ Cinder Cone | 9. Waves, breaking into foam as they approach or dash against the shore. |
| _____ Branch | 10. A large cave of room size or larger. |
| _____ Cliff | 11. A deep, anrow valley having high, steep slopes; example: Yellowstone River Canyon. |
| _____ Breakers | 12. An important or large municipality, usually having a larger population than a town, village, or borough. |
| _____ Coast | 13. The steep, rocky face of a bluff. |
| _____ Brink | 14. Any one of the seven largest areas of land on the Earth's surface: North America, South America, Europe, Asia, Africa, Australia, and Antarctica. Sometimes Eurasia is the name given to Europe and Asia together. |
| _____ Continent | 15. Land along the sea. |
| _____ Canyon | 16. A cone-shaped mass of material made by volcanic eruption. |

Name _____

Geographical Quiz
Page 4

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|-------------------------|--|
| _____ Continental shelf | 1. A small valley. |
| _____ Country | 2. Land which is plowed or spaded and used for growing crops. |
| _____ Cove | 3. A projecting point of rock, usually perpendicular or nearly so. |
| _____ Archipelago | 4. The shallow sea area bordering the continents. |
| _____ Chasm | 5. Any broad area of water containing several islands; also such a group of islands. |
| _____ Crag | 6. A bank or wall built across a stream to hold back water. |
| _____ Crater | 7. An empty, deep gap in the surface of the earth. |
| _____ Breakers | 8. A natural stream of running water larger than a brook and smaller than a river. |
| _____ Creek | 9. A small, sheltered inlet from any body of water. |
| _____ Bluff | 10. (1) A nation or area of land which is politically controlled by one government. (2) Thinly populated areas as compared with a city. |
| _____ Cultivated land | 11. Waves, breaking into foam as they approach or dash against the shore. |
| _____ Brink | 12. A steep, high bank beside a body of water. |
| _____ Current | 13. The bowl shaped opening at the top of a volcano. |
| _____ Dale | 14. (1) The more swiftly moving part of a stream. (2) The continuous movement in one direction of the surface water of an area of the ocean. |
| _____ Dam | 15. The very edge at the top of a bluff, cliff, or precipice. |

Name _____

Geographical Quiz
Page 5

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|-------------------------|--|
| _____ dell | 1. A small island the shape of a ring or horseshoe; formed by deposits of coral sea animals. |
| _____ delta | 2. A cone-shaped mass of material made by volcanic eruption. |
| _____ desert | 3. (1) The planet on which man lives.
(2) Any amount of soil found on the surface of the earth. |
| _____ dike | 4. The direction in which a stream is flowing. |
| _____ divide | 5. Earth or other material built up along a river or ocean to keep the water from overflowing onto the land. |
| _____ dock | 6. A small, sheltered valley or ravine. |
| _____ downstream | 7. A narrow piece of land projecting into the sea. |
| _____ drainage basin | 8. A projecting point of rock, usually perpendicular or nearly so. |
| _____ dune | 9. The water or space between two wharves; sometimes used to refer to the wharves themselves. |
| _____ earth | 10. Earth that is dropped by running water when a stream flows into the still water of a lake or ocean. |
| _____ atoll | 11. The shallow sea area bordering the continents. |
| _____ cape | 12. A large area of land with little or no moisture or vegetation. |
| _____ cinder cone | 13. A water parting or watershed which separates two drainage areas; for example, the Continental Divide. |
| _____ continental shelf | 14. A hill or ridge of sand piled up by the wind. |
| _____ crag | 15. The area from which a single stream or river and its tributaries drains all of the water. |

Name _____

Geographical Quiz
Page 6

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|-----------------|--|
| _____ Elevation | 1. A slow, sluggish stream; usually used to describe inlets from the Gulf of Mexico or from the Mississippi. |
| _____ Estuary | 2. Earth that is dropped by running water when a stream flows into the still water of a lake or ocean. |
| _____ Fall line | 3. A small valley usually long, narrow, and steep sided. |
| _____ Field | 4. A shallow plane where a stream or body of water may be crossed by wading or driving through the water. |
| _____ Fiord | 5. The line connecting the places where streams emerge from the uplands onto lowlands; usually marked by waterfalls or rapids. |
| _____ Foothill | 6. Height or distance above sea level. |
| _____ Ford | 7. An inlet from the sea or other body of water. |
| _____ Forest | 8. A large cave of room size or larger. |
| _____ Glacier | 9. A narrow arm of the sea at the mouth of a river where the ocean tide meets the river current. |
| _____ Glen | 10. The steep, rocky face of a bluff. |
| _____ Arm | 11. An area of cleared land, often bounded by fences. |
| _____ Bayou | 12. A large sheet or stream of ice formed in an area, usually at high elevations, where the temperature remains below or near freezing and more snow accumulates in winter than melts in summer. |
| _____ Cavern | 13. A large area of land covered with trees. |
| _____ Cliff | 14. A hill at the base of a mountain. |
| _____ Delta | 15. A deep, narrow inlet of the sea, between high, steep banks. |

Name _____

Geographical Quiz
Page 7

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|----------------|---|
| _____ gorge | 1. A deep, hollowed-out area under the earth's surface. |
| _____ grove | 2. The line where the earth's surface and the sky seem to meet. |
| _____ gulch | 3. A high area of land with a steep slope, projecting into a body of water. |
| _____ gulf | 4. Very wet spongy ground not able to support much weight; usually made up of decayed plants. |
| _____ harbor | 5. A huge block of floating ice broken from a glacier; found in the most northerly and southerly areas of the world's oceans. |
| _____ headland | 6. A small area of land that is higher than the land around it. |
| _____ highway | 7. A man-made channel filled with water used for navigation, irrigation, or drainage. |
| _____ hill | 8. A narrow passage between steep mountains or hills; a steep, rocky ravine. |
| _____ horizon | 9. An area of water bordering on, and lying within a curved coastline; usually larger than a bay and smaller than a sea; sometimes nearly surrounded by land. |
| _____ iceburg | 10. A deep, narrow inlet of the sea, between high, steep banks. |
| _____ bog | 11. A group of trees smaller than a forest, generally without undergrowth. |
| _____ canal | 12. A narrow arm of the sea at the mouth of a river where the ocean tide meets the river current. |
| _____ cave | 13. A narrow, rocky valley or gorge; a ravine. |
| _____ estuary | 14. Main road or thorofare. |
| _____ fiord | 15. A sheltered body of water where ships anchor and are protected from storms. |

Name _____

Geographical Quiz
Page 8

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|----------------------|---|
| _____ inlet | 1. The pebbly or sandy shore of the sea or of a lake which is washed by the waves. |
| _____ irrigated land | 2. The portion of the Earth's surface above the level of the sea or ocean. |
| _____ island | 3. A high area of land with a steep slope projecting into a body of water. |
| _____ isthmus | 4. (1) A pool of shallow water connected to the sea by an inlet. (2) Water enclosed by coral islands. |
| _____ junction | 5. A small, sheltered inlet from any body of water. |
| _____ knob | 6. The meeting point of two streams, roads, or railroads. |
| _____ knoll | 7. Land watered by artificial means thru the use of small canals or ditches. |
| _____ lagoon | 8. A large area of land covered with trees. |
| _____ lake | 9. A small opening between a small and a larger body of water. |
| _____ land | 10. A hill at the base of a mountain. |
| _____ beach | 11. A narrow piece of land joining two larger bodies of land, or joining a peninsula with a mainland. |
| _____ cove | 12. A small, round hill or mound. |
| _____ foothill | 13. An inland body of water usually of considerable size. |
| _____ forest | 14. An area of land surrounded by water. |
| _____ headland | 15. A smooth rounded hill. |

Name _____

Geographical Quiz
Page 9

- | | |
|----------------------|--|
| _____ ledge | 1. An area of level land where grass is grown and usually cut for hay. |
| _____ left bank | 2. Earth or other material built up along a river or ocean to keep the water from overflowing onto the land. |
| _____ levee | 3. A series of connecting mountains. |
| _____ locks | 4. A projection of rock having the appearance of a shelf; sometimes used to describe an outcropping of rock on the surface of the earth. |
| _____ marsh | 5. A pit from which coal, minerals, or precious stones are taken by digging. |
| _____ meadow | 6. A small stream or creek emptying into a larger stream. |
| _____ mesa | 7. The bank of a stream which lies on the left side as one goes with the current. |
| _____ mine | 8. A narrow piece of land joining two larger bodies of land, or joining a peninsula with a mainland. |
| _____ mountain | 9. A natural stream of running water larger than a brook and smaller than a river. |
| _____ mountain range | 10. An enclosure with gates built in a canal or river, so that ships can be raised or lowered by changing the water level. |
| _____ branch | 11. A lofty elevation on the earth's surface. |
| _____ harbor | 12. An embankment beside a stream which prevents overflow. |
| _____ creek | 13. A flat topped, rocky hill with steeply sloping sides. |
| _____ dike | 14. A sheltered body of water where ships anchor and are protected from storms. |
| _____ isthmus | 15. An area of low, wet, poorly drained land. |

Name _____

Geographical Quiz
Page 10

- | | |
|-------------------------|---|
| _____ natural resources | 1. A fertile spot within a desert, watered by underground springs or by irrigation. |
| _____ oasis | 2. A piece of land nearly surrounded by water and attached to a larger area of land or the mainland by an isthmus. |
| _____ ocean | 3. A man-made channel filled with water used for navigation, irrigation, or drainage. |
| _____ pass | 4. An area of cleared land, often bounded by fences. |
| _____ pasture | 5. A nearly level area of land usually of considerable size. |
| _____ peak | 6. A hill or ridge of sand piled up by the wind. |
| _____ peninsula | 7. Supplies of materials found in nature, such as minerals, water power, or coal. |
| _____ pier | 8. An area of rolling land along the foot of a mountain range. |
| _____ peidmont | 9. An opening thru hills or mountains used as a route for highways or railroads. |
| _____ plain | 10. A narrow passage between steep mountains or hills; a steep, rocky ravine. |
| _____ canal | 11. Any one, or all, of the four largest connecting bodies of salt water on the earth's surface; the Atlantic, Pacific, Indian, and Artic Oceans. |
| _____ dune | 12. A structure projecting into the water and used as a docking or loading place for ships. |
| _____ field | 13. An enclosure with gates built in a canal or river, so that ships can be raised or lowered by canging the water level. |
| _____ gorge | 14. An area of land used for grazing domestic animals. |
| _____ locks | 15. The highest part of a mountain; usually steep sided at the summit. |

Name _____

Geographical Quiz
Page 11

- | | |
|------------------|---|
| _____ plateau | 1. (1) A track for trains, made of metal rails fastened to wooden ties. (2) The trains, stations, tracks, and the group of men that operate them. |
| _____ point | 2. The line where the earth's surface and the sky seem to meet. |
| _____ pond | 3. A factory which generates electricity thru the use of water power or other source of power. |
| _____ pool | 4. Land along the sea. |
| _____ powerplant | 5. A large, level, or nearly level area of elevated land. |
| _____ prairie | 6. A series of rocks in a body of water, the tops of which are slightly beneath or at the surface. |
| _____ precipice | 7. A smooth rounded hill. |
| _____ railroad | 8. A small, round hill or mound. |
| _____ rapids | 9. A body of still water smaller than a lake. |
| _____ reef | 10. A small valley. |
| _____ coast | 11. A tapering piece of land projecting sharply into a stream or body of water. |
| _____ dale | 12. Part of a stream where the water flows very swiftly over rocks. |
| _____ horizon | 13. (1) A deep spot in a stream. (2) Any very small body of water. |
| _____ knob | 14. Any natural grassland; but usually used to describe the vast areas of level or rolling land without trees in the central part of the United States. |
| _____ knoll | 15. A very steep, high cliff. |

Name _____

GEOGRAPHICAL QUIZ

_____ seaport

_____ shoal

_____ breakwater

_____ shore

_____ shoreline

_____ plain

_____ slope

_____ snowline

_____ soil

_____ altitude

_____ levee

_____ junction

_____ sound

_____ spit

_____ strait

1. The meeting point of two streams, roads, or railroads.

2. A long narrow sandy point of land projecting into water.

3. Any land whose surface gradually rises in a general direction.

4. An embankment beside a stream which prevents overflow.

5. Elevation or height above sea level.

6. A sand bar, the top of which reaches nearly to the surface of the water, and usually is above the surface during low water; also any very shallow spot in a body of water.

7. A wall built in water near the shore to break the force of the waves and to provide shelter for boats and ships.

8. A nearly level area of land usually of considerable size.

9. A passageway of water connecting two large bodies of water.

10. (1) A harbor at the shore of the ocean or large body of water developed with facilities to load and unload sea-going vessels. (2) A city or town built at this point.

11. Loose material which forms the upper surface of the Earth; the dirt or earth in which plants grow.

12. The line where the land meets the water of any large river or body of water.

13. The line on a mountain above which there is snow the year around.

14. A long and rather narrow body of water larger than a strait, connecting two large bodies of water or separating a large island from the mainland.

15. Land bordering the sea, a lake, or a large river.

Name _____

GEOGRAPHICAL QUIZ

- | | |
|--------------------------|---|
| _____ stream | 1. Wires strung on poles to carry electricity from power plant to place of use. |
| _____ swamp | 2. Part of a stream where the water flows very swiftly over rocks. |
| _____ island | 3. An artificial passage beneath the surface of the earth. |
| _____ summit | 4. Alternate rise and fall of the water level of a lake or ocean; caused by gravitational pull of the moon on the earth. |
| _____ crater | 5. (1) A large village. (2) In some states the same as a township. |
| _____ tableland | 6. An area of land surrounded by water. |
| _____ terrace | 7. The bowl shaped opening at the top of a volcano. |
| _____ tide | 8. A flow of moving water usually of natural origin. |
| _____ timber | 9. A stream which flows into another stream; usually used to describe the one which considerably increases the size of the stream into which it flows. |
| _____ timberline | 10. Highest part of a hill or mountain. |
| _____ rapids | 11. Forest land covered by trees of sufficient size, kind, and quality to be of commercial value. |
| _____ town | 12. A level and rather narrow area of land with one edge of steep face bordering a river, a lake, or the sea; often one of a series arranged one above another as steps on a slope. |
| _____ transmission lines | 13. An area of low spongy land too wet to farm but usually supporting an abundance of coarse grasses, trees, or other vegetation. |
| _____ tributary | 14. The line on a mountain above which trees do not grow. |
| _____ tunnel | 15. A level area of high land varying in size from a mesa to an extensive plateau. |

Name _____

GEOGRAPHICAL QUIZ

- | | |
|------------------|---|
| _____ upstream | 1. A cone-shaped mountain formed by lava and cinders, erupted through a crater; an opening in the earth's surface from which flows or has flown molten rock, steam, cinders, gas, and rock fragments. |
| _____ vale | 2. An area of land covered with trees; a forest. |
| _____ valley | 3. A large area of land covered with trees. |
| _____ vegetation | 4. A moving ridge of water which rises and falls. |
| _____ village | 5. A stream of water dropping over a dam or precipice. |
| _____ volcano | 6. A flat topped, rocky hill with steeply slopping sides. |
| _____ waterfall | 7. Low land between two hills. |
| _____ watershed | 8. Any place where water flows in a small circle; usually caused by the current of a stream striking a bank or by two currents meeting. |
| _____ waves | 9. Waves, breaking into foam as they approach or dash against the shore. |
| _____ wharf | 10. Growing plants. |
| _____ whirlpool | 11. (1) The elevated land or divide separating two drainage areas. (2) The entire area drained by a river and its tributaries. |
| _____ woods | 12. A large dock from which ships may load or unload. |
| _____ breakers | 13. The land between hills or mountains, usually containing a stream. |
| _____ forest | 14. A small collection of houses less than for a town or city. |
| _____ mesa | 15. Direction from which a stream is flowing. |

Alaska

Materials:

1. Desk map of Alaska
2. Research materials, i.e., books from the library
3. Social Studies text, pages 75-89
4. Nystrom Mid America Panorama/Landform Study Prints:
#49 Channel Inside Passage, #50 Mountains--Mt. McKinley,
#37 Mountains--Rackla Range (Yukon Territory), #31 Coast-
line--Arctic Coast/Northwest Territories

Presentation:

1. Use the text as the basis for beginning the study of Alaska.
2. The attached reading list can be used for topical reports or book reports with a variety in reading capabilities.
3. The list of 30 places to locate on the desk maps has been correlated to the books from the reading list.
4. Topics which could be considered for reports might be: early history--Russian occupations, natural resources, industries, tourist attractions, agricultural products, sea as a source of food, tundra, modes of transportation.
5. Present the Nystrom Study Prints:
 Why aren't there any trees in these mountains?
 What types of vegetation grow here?
 Why is a pingo so unusual?
6. Present new vocabulary words to be added to their flashcards. Make sure these words would be included: tundra, caribou, glacier, crevasse, cache, pingo, permafrost, arete, cirque, tree line.

Student Activities:

1. Using the desk maps and reference maps, find the locations listed by the teacher.
2. Pick a town in Alaska; write to a fifth grade class explaining your studies of Alaska and ask them to write back, answering questions you may have about the area.

3. Have a couple of students write to the Chamber of Commerce of various cities asking for information about the state.
4. Have a group of students who are working together create their own raised relief map of Alaska using plaster of paris, flour and water, or clay.
5. Create a bulletin board with illustrations and material gathered from letters on the different aspects important to the development of Alaska.
6. Oral reports on different topics from Alaska.
7. Have the students prepare a meal which is native to Alaska and present it to the class.
8. Study vocabulary.

Places to Locate on Desk Maps

- | | |
|------------------------|-----------------------------|
| 1. Pribilof Islands | 16. Cook Inlet |
| 2. St. Lawrence Island | 17. Bering Strait |
| 3. Nunivak Island | 18. Arctic Circle |
| 4. Juneau | 19. Canada |
| 5. Sitka | 20. Mantanuska Valley |
| 6. Kodiak | 21. International Date Line |
| 7. Anchorage | 22. Mt. McKinley |
| 8. Nome | 23. Brooks Mountain Range |
| 9. Fairbanks | 24. Alaska Mountain Range |
| 10. Douglas | 25. Aleutian Range |
| 11. Ketchikan | 26. Seward Peninsula |
| 12. Arctic Ocean | 27. Yukon River |
| 13. Arctic Slope | 28. Kuskokwim River |
| 14. Gulf of Alaska | 29. Kobuk River |
| 15. Bristol Bay | 30. Colville River |
| | 31. Point Hope |

Reference Books

LIFE IN AMERICA--ALASKA
 FIRST BOOK OF ALASKA
 HERE IS ALASKA
 MEN AT WORK IN ALASKA
 PICTURE STORY OF ALASKA
 ALASKA
 DWELLERS OF THE TUNDRA
 BUSH FLYING IN ALASKA
 ALASKA
 ALASKA THE LAND AND THE PEOPLE
 GETTING TO KNOW ALASKA

Stuart Tompkins
 Edith Stull
 F. Velyn Stefansson
 Frances C. Smith
 Hester O'Neill
 Bern Keating
 Aylette Jenness
 Morrow
 Carpenter
 Butler and Dale
 Jim Brutvold

Name _____

Alaska
Review Quiz

1. Fairbanks is found on the _____ River.
2. The _____ Sea is found east of Alaska.
3. The _____ River runs east-west through the complete state of Alaska.
4. Name the two bays to the north and to the south of Seward's Peninsula.

5. Name the game preserve on Nunivak Island. _____
6. What is the large mountain in the northern half of Alaska. _____
7. Name the mountain range south of Fairbanks. _____
8. What is the monument east of Juneau? _____
9. Name the body of water south of Alaska. _____
10. Name the body of water north of Alaska. _____
11. Name the first two sets of mountains north of the city of Cordova. _____
12. Name the four sets of mountains that make up the Brooks Range.

13. Name two islands found east of Alaska in the Bering Sea.

14. Name the game preserve in the north eastern corner of Alaska.

15. Name the ocean found south of Alaska. _____
16. Name the large island south of Anchorage in the Gulf of Alaska.

17. Name the bay just north of the Alaska Peninsula. _____
18. What national park is found north of Anchorage? _____
19. What is the capital of Alaska? _____
20. One inch is equal to approximately how many miles on this map? _____

21. What penninsula is found south of Anchorage? _____

22. Using the Alaska Mileage Chart what are the following distances:

Great Falls to Anchorage _____

Fairbanks to Great Falls _____

Fairbanks to Anchorage _____

Great Falls to Seward _____

New York to Anchorage _____

Seattle to Dawson Creek _____

23. Using the Index of Cities and Towns give the letter and number of it's location on the map. Also list its population.

<u>TOWN</u>	<u>POPULATION</u>	<u>LETTER</u>	<u>NUMBER</u>
Circle			
Anchorage			
Sitka			
Fairbanks			
Juneau			
Hope			

Name _____

True and False
Use highway maps

1. _____ There is a road between College and Galena.
2. _____ Point Hope is north of Seward Peninsula.
3. _____ Brooks Range is east of Point Hope.
4. _____ Juneau is south west of Ketchikan.
5. _____ Sitka is the capital of Alaska.
6. _____ Kuskokwin River is north of the Yukon River.
7. _____ Arctic Ocean is north of the Bering Sea.
8. _____ To go from Anchorage to Fairbanks you have to pass through the Alaskan Range.
9. _____ Yukon River flows north and south.
10. _____ The International Date Line is east of Alaska.
11. _____ Canada is to the west of Alaska.
12. _____ Prince Rupert borders on the Bering Sea.
13. _____ Mt. McKinley is 38,453 feet tall.
14. _____ Kenia is found bordering the Cook Inlet.
15. _____ St. Lawrence Island is found beside Bristol Bay.
16. _____ The Yukon River enters into the Bering Sea.
17. _____ Fort Yukon is on the Kuskokwin River.
18. _____ Cordova is found on Bristol Bay.
19. _____ The Wrangell Mountains are part of the Brooks Range.
20. _____ Douglas is south of Juneau.
21. _____ Arctic slope is south of the Yukon River.
22. _____ The Alaskan Peninsula is in the Arctic Ocean.
23. _____ The Tongass National Forest borders on the Pacific Ocean.
24. _____ Point Barrow is south of Point Hope.
25. _____ Alaska is the second largest state in the union.

Alaska - Handout

Use the Alaska Highway Map to answer these questions.

1. How many miles are equal to one inch? _____
2. What is the large peninsula in the middle of the western coast of Alaska?

3. What five different groups of mountains make up the Brooks Mountain Range?
_____, _____, _____
_____, _____, _____
4. What mountains are found at 62° latitude and 144° longitude? _____
5. What mountains are located near 62° latitude, 148° longitude? _____
6. Name the lake found on the Arctic Circle and 160° longitude. _____
7. What glacier is found next to the capital of Juneau? _____
8. What large island is found near 58° latitude and 152° longitude? _____
9. How far is it from Anchorage to Fairbanks? _____
10. What large river passes through the middle of Alaska into Canada? _____

11. What are the two seas found to the west of Alaska? _____

12. What mountains are found west of Fairbanks? _____
13. What mountains are found south of Fairbanks? _____
14. Name the river found at 62° latitude, 160° longitude. _____
15. Name the river found at 66° latitude, 144° longitude. _____
16. What national park is found along Highway 3 between College and Anchorage?

17. On what peninsula is the city of Kenai found? _____
18. Give the latitude and longitude which intersect on Seward Peninsula.

19. Name the latitude and Longitude of Bristol Bay. _____

20. Are the roads paved from Fairbanks all the way to Anchorage?
to Juneau? _____

21. Is there a road from Fairbanks to Nome? _____
22. What is the symbol for glaciers? _____
23. What is the population of Fairbanks? _____
of Juneau? _____ of Anchorage? _____
24. What sea and what ocean are located north of Alaska? _____

25. What country is east of Alaska? _____

U. S. Contour Maps

Note: This lesson should be used with the section on elevation.

Materials

U. S. raised relief map
U. S. contour desk maps
Colored Pencils
Obtain some samples of contour maps from the Forest Service

PROCEDURES

1. What are contour maps?
Why do we need them?
What can we learn from looking at a contour map?
What does it mean when the contour lines are far apart?
What does it mean when the lines are close together?
How do you think the lines would look around Great Falls?
Can you name some towns that would be found where the lines would be close together?
Can we tell what kind of plant is in an area by looking at a contour map? Why?
2. Show the samples of contour maps obtained from the Forest Service. Why are these maps helpful to the Forest Service or Fish and Game? How might you use these maps? What other occupations might use these maps? How might these maps be used by oil companies or geologists?
3. Handout the contour desk maps. Have each student create his own color code for the elevation key and, using colored pencils, color in the map accordingly. Have each student locate major passes in the mountains where pioneers came West. Locate the major rivers, such as the Mississippi, Missouri, Colorado, Ohio, Salmon, and Columbia. After all the elevations have been color coded, use the attached sheet of locations and, using the U. S. raised relief map, transfer these locations to the desk maps. You may wish to transfer elevations of mountain peaks to the desk maps.
4. For the convenience of the students, use black felt tip markers to outline the states and abbreviate the names of the states.
5. Note where national parks are in relationship to high or low elevations. What types of parks are located in each elevation?

STUDENT ACTIVITIES

1. Using the contour desk maps, the students will become familiar with different elevations of the different areas of the U. S. The U. S. raised relief molds used for the U. S. desk maps would be of great assistance in this study.

2. The student will acquire some basic knowledge of occupations which use contour maps either by student reports and investigations or possible by having guest speakers come and tell of their careers.
3. The student will become familiar with the relationship of different elevations to different recreational activities through discussions and by writing letters to various states for recreational activities.

Locations for Contour Map

Use the U. S. Raised Relief Map from the library to locate the following places on your student contour desk maps.

Granite Peak, Montana
Gannette Peak, Wyoming
Mt. Elber and Pikes Peak, Colorado
Wheeler Peak, New Mexico
Wheeler Peak, Utah
Grand Canyon
Borah Peak, Idaho
Mt. Rainer, Washington
Central Valley of California
Great Plains
Death Valley, California
Appalachian Highlands
Colorado River
Missouri River
Mississippi River
Ohio River
Tennessee River
Columbia River
Great Salt Lake
Helena, Montana
Boise, Idaho
Bismark, North Dakota
Baton Rouge, Louisiana
Topeka, Kansas
Austin, Texas
Denver, Colorado

Contour Maps - Handout

Use the contour desk maps to answer the following questions.

1. Name two occupations which would have a use for contour maps.

2. List two reasons for having a contour map. _____

3. Name three southern states in which the whole state is below 1000 ft. elevation. _____, _____, _____
4. Name three states of the Great Plains which are almost entirely 1000-5000 ft. elevation. _____, _____, _____
5. What is the general elevation of eastern Montana? _____
6. What is the elevation of central Colorado? _____
7. What is the elevation of Illinois? _____
8. Most of Kansas is what elevation? _____
9. Does Texas have any elevation above 8000 feet? _____
10. What two Western states do not have any elevation above 8000 feet?
_____, _____
11. At what elevation is the Mississippi River? _____
12. What states bordering Canada have the highest elevations (above 5000 ft.)?

13. How many states of the continental U. S. have elevations above 5000 ft.? _____
Name these states. _____

14. How many states have elevations above 8000 feet? _____
15. How many states have elevations of 1000-5000 feet? _____

U. S. MAPS

Materials:

1. Plaster cast molds from the IMC on cheese cloth.
2. Desk maps on the U. S.
3. Social Studies Text, 209-262; Maps on 259-260.
4. U. S. raised relief maps from the library.

Presentation:

1. Try to correlate the desk maps with the unit on the U. S. beginning on page 209 in the text.
2. Civil War--color Union States one color and Confederate States another color--use text maps, pages 259-260.
 - a. Note important towns and battles, pg. 260
 - b. Create your own key color code and symbols
3. Vocabulary--discuss natural land forms found in continental U. S.--terms may be obtained from the Geographical Terms by Denoyer Geppert Company. These lists could be added to the scrapbook of illustrations.
4. After map work of the Civil War is completed, the remainder of the states may be named along with their date of entry into the Union. Use the U. S. raised relief maps for both names and dates.
5. Mountains, valleys, deserts, plains and major rivers should at least be pointed out if there is not room left on the maps to write the names out.
6. The plaster cast molds may be used to emphasize natural geographical features such as mountains, prairies, valleys, and rivers--i.e., Rocky Mountains, Great Plains, Mississippi Valley, etc. Make sure the molds are reinforced with cheese cloth for strength. Tempura paint mixed with Elmer's Glue gives an attractive finish to geographical areas.
7. Important cities, seaports, industrial areas, and types of minerals may be located on either molds or desk maps. The importance of mountain passes may be pointed out in relationship to settling of the country and population growth.
8. Reports: natural formations--Death Valley, Great Salt Lake, rivers, mountains, national parks, etc.
9. Bulletin board with a large map of the U. S. could be used to relate products, historical facts, and tourist attractions.
10. Have each student make a report on at least one state--write to each state for information, draw free-hand enlargements of each state noting the important characteristics of each state. Relate these reports to the bulletin board and master map of the U.S.

11. Art--Using the state borders as outlines, color in the state in a psychedelic pattern. After all states have been completed, piece the states back together to form the 48 Continental United States.
12. Use of ditto review using map skills to answer questions.

Student Activities:

1. The students will use desk maps to locate important areas of the Civil War. Later this will be expanded to work with all states.
2. Each student will choose at least one state to do a report on. The student will write a letter to the Chamber of Commerce of some cities in that state requesting information.
3. As a class project, a bulletin board will be created with information about each state students have studied.
4. Each student will create their own plaster of paris raised relief map of the U. S. and paint it according to elevations, using the raised relief maps from the library as a guide.

UNITED STATES

States - Abbreviations - Capitals

Name _____

	STATES	CAPITALS
1. DE		
2. PA		
3. NJ		
4. GA		
5. CT		
6. MA		
7. MD		
8. SC		
9. NH		
10. VA		
11. NY		
12. NC		
13. RI		
14. VT		
15. KY		
16. TN		
17. OH		
18. LA		
19. IN		
20. MS		
21. IL		
22. AL		
23. ME		
24. MO		
25. AR		

UNITED STATES

States - Abbreviations - Capitals NAME _____

	STATES	CAPITALS
26. MI		
27. FL		
28. TX		
29. IA		
30. WI		
31. CA		
32. MN		
33. OR		
34. KS		
35. WV		
36. NV		
37. NB		
38. CO		
39. ND		
40. SD		
41. MT		
42. WA		
43. ID		
44. WY		
45. UT		
46. OK		
47. NM		
48. AR		
49. AK		
50. HI		

U. S. Study

Use the U. S. raised relief maps from the library.

1. Name two states which are entirely 0-500 feet in elevation.

2. Which state has the most area above 10,000 feet?

3. Which three states west of the Mississippi River have the lowest elevations?

_____, _____, _____

4. Which two states border on the Sierra Nevada Mountain Range?

_____, _____

5. Name five states which would be included in the Great Plains.

_____, _____, _____

_____, _____

6. Name four states which contain the Rocky Mountains.

_____, _____, _____

7. Name five states which contain the Appalachian Mountains.

_____, _____, _____

_____, _____

8. Name five states on the Gulf of Mexico.

_____, _____, _____

_____, _____

9. Which three states border the Pacific Ocean?

_____, _____

10. Which states border Canada?

_____, _____, _____

_____, _____, _____

_____, _____, _____

U. S. Map Review

Use raised relief maps of the U. S.

Name the state where each of these locations may be found.

Black Rock Desert	_____
Mojave Desert	_____
Pikes Peak	_____
Salmon River Mountains	_____
Badlands	_____
Mt. Olympia	_____
Everglades	_____
Las Vegas	_____
Baton Rouge	_____
Nashville	_____
Montgomery	_____
Indianapolis	_____
Des Moines	_____
Austin	_____

Name the capital of the state where these coordinates are located.

30° N. lat. - 100° W. long.	_____
35° N. lat. - 95° W. long.	_____
48° N. lat. - 107° W. long.	_____
37° N. lat. - 87° W. long.	_____
33° N. lat. - 83° W. long.	_____
45° N. lat. - 90° W. long.	_____
40° N. lat. - 85° W. long.	_____
35° N. lat. - 80° W. long.	_____
35° N. lat. - 110° W. long.	_____
40° N. lat. - 115° W. long.	_____

Tell whether or not the state is east or west of the Mississippi River
and north or south of the 40° N. lat.

	<u>east or west</u>	<u>north or south</u>
Montana	_____	_____
Mississippi	_____	_____
Illinois	_____	_____
Oklahoma	_____	_____
Pennsylvania	_____	_____
Kansas	_____	_____
Wyoming	_____	_____
Alaska	_____	_____
Maine	_____	_____
New York	_____	_____

STATE CAPITALS

The names of 26 capital cities in the U.S. are tucked into this puzzle. Can you find them?

J	U	N	E	A	U	Y	H	O	N	O	L	U	L	U
X	Q	V	B	A	T	O	N	R	O	U	G	E	W	T
W	P	H	O	E	N	I	X	W	T	O	P	E	K	A
J	V	Q	S	Y	C	O	N	C	O	R	D	V	Q	L
M	O	N	T	G	O	M	E	R	Y	Y	J	Z	S	L
A	D	D	O	J	L	K	T	A	U	G	U	S	T	A
D	D	Q	N	Q	U	Z	R	Y	J	A	P	A	P	H
I	V	F	F	F	M	K	E	Z	D	L	I	N	A	A
S	A	L	E	M	B	V	M	K	E	B	E	T	U	S
O	T	K	Z	A	U	S	T	I	N	A	R	A	L	S
N	L	X	D	Y	S	J	O	J	V	N	R	F	J	E
K	A	B	O	I	S	E	N	Q	E	Y	E	E	Z	E
Z	N	Z	V	F	W	Y	H	A	R	T	F	O	R	D
W	T	J	E	S	P	R	I	N	G	F	I	E	L	D
S	A	C	R	A	M	E	N	T	O	X	Q	W	E	V

Name _____

Test on Eastern Map of U.S.

1. Which states joined the union in 1787? _____
2. What is the smallest state and what is its area? _____
3. Name the states which border Tennessee. _____
4. What is the capital of the state furthest north? _____
5. Lake Erie borders on which states? _____
6. Name the five smallest states beginning with the smallest. _____
7. What is the difference in area between New York and Louisiana? _____
8. Which is the largest state? _____
9. Name three cities in Maine. _____
10. In which state is the James River? _____
11. The Ohio River forms the boundary for which states? _____
12. Name the capitals of 13 states that border on the Atlantic Ocean. _____
13. Name 3 cities in Ohio. _____
14. Lake Huron borders on which state? _____
15. Name the 5 largest states from the largest to smallest. _____
16. Name the lakes which are known at the "Great Lakes". _____
17. Name the states that became states after 1800. _____
18. What are the capitals of the states which border on the east bank of the Mississippi? _____
19. Name the capitals of the states which border Pennsylvania. _____
20. Name the states and their areas that joined the union in 1788. _____

With each state listed below would you write the name of the capital of that state.

1. Kansas _____
2. Texas _____
3. Florida _____
4. Vermont _____
5. Michigan _____
6. Maine _____
7. Missouri _____
8. Illinois _____
9. Iowa _____
10. Minnesota _____
11. Connecticut _____
12. Maryland _____
13. North Carolina _____
14. Ohio _____
15. Colorado _____
16. Washington _____
17. Oklahoma _____
18. Alaska _____
19. Rhode Island _____
20. Georgia _____

With each state listed below would you write the name of the capital of that state.

1. West Virginia _____
2. Idaho _____
3. Hawaii _____
4. Michigan _____
5. New Mexico _____
6. Utah _____
7. North Dakota _____
8. Alabama _____
9. Tennessee _____
10. South Carolina _____
11. Delaware _____
12. Pennsylvania _____
13. Oregon _____
14. Indiana _____
15. New Hampshire _____
16. California _____
17. Wyoming _____
18. Wisconsin _____
19. New York _____
20. Kentucky _____

Name the state in which each capital is located.

- | | |
|---------------------|-------------------------|
| 1. Columbus_____ | 21. Raleigh_____ |
| 2. Harrisburg_____ | 22. Annapolis_____ |
| 3. Austin_____ | 23. Frankfort_____ |
| 4. Carson City_____ | 24. Des Moines_____ |
| 5. Lincoln_____ | 25. Olympia_____ |
| 6. Bismarck_____ | 26. Pierre_____ |
| 7. Phoenix_____ | 27. Charleston_____ |
| 8. Juneau_____ | 28. Little Rock_____ |
| 9. Baton Rouge_____ | 29. Augusta_____ |
| 10. Jackson_____ | 30. Denver_____ |
| 11. Trenton_____ | 31. Honolulu_____ |
| 12. Hartford_____ | 32. Santa Fe_____ |
| 13. Boise_____ | 33. Helena_____ |
| 14. Topeka_____ | 34. Sacramento_____ |
| 15. Salem_____ | 35. Springfield_____ |
| 16. Madison_____ | 36. Cheyenne_____ |
| 17. Augusta_____ | 37. Lansing_____ |
| 18. Montgomery_____ | 38. Dover_____ |
| 19. Nashville_____ | 39. St. Paul_____ |
| 20. Concord_____ | 40. Jefferson City_____ |

The names of all 50 states of the United States can be found among the letters below. The names sometimes read forward, sometimes backward, sometimes up, down, diagonally. Draw a pencil line around the name of a state when you find the sequence of letters that spells it.

S T T E S U H C A S S A M T R S M Z A O U R
 R E T S K C I K P L B V T S Y A V E M A A W
 A N O Z I R A I N I G R I V T S E W I D N Y
 A I N R O F I L A C U A Z X Y S R G N I A K
 N O T G N I H S A W U N A B S T M E N R I C
 S O U T H D A K O T A N E E J J O O E O S U
 M A R Y L A N D L M I H N W N O N R S L I T
 O P U T A H R S T L N N U E J V T G O F U N
 A K A X H O A W O I E Y Z A V E R I T S O E
 K R L S B C D R E T R C I J K A R A A X L K
 S O A A I N A V L Y S N N E P M D S N Q P E
 A Y S X H C S R N A G I H C I M N A E T U R
 R W K E H O W Y O M I N G V S A X Y S Y A H
 B E A T C E M F I L H J T I K L I K I E O O
 E N U K L M E A H M I H E R C A R T N H D D
 N O R T H D A K O T A N A G L B N I D U A E
 S R I R U O S S I M I T A I S A A S I K R I
 N E W H A M P S H I R E B N O M O R A E O S
 X G I P P I S S I S S I M I V A V W N S L L
 Y O C I X E M W E N D E L A W A R E A Z O A
 X N I S N O C S I W R T S A N A T N O M O N
 T T U C I T C E N N O C S I O N I L L I X D

California Map

Materials

1. Nystrom: Mid-America Panorama; #42--Death Valley, #43--Eastern Sierra Nevada Mountains, #44--Western Sierra Nevada Mountains, #46--Coast Ranges of California, #47--Golden Gate, California
2. Desk Maps of California
3. Available resource materials on California, including texts
4. Clay or plaster of paris
5. Overhead projection of California
6. Handout sheets on California
7. Highway maps of California obtained by writing letters.

Procedures

1. Use text, pages 131-142.
2. Have the students write to schools in California seeking information on climate, crops, and recreational activities.
3. Discuss some of the history of California and what was the attraction which brought people to California.
 - What was the first country to send settlers to California?
 - From what nationality do most cities in California get their name?
 - What event brought a lot of Americans to California?
 - Where was gold found in California and by whom?
 - What were the miners called that came in this time period?
4. Assign reports on topics related to California history: John Sutter, John Chapman, Father Serra, Cabrillo.
5. By writing to the Department of Commerce in Sacramento, California, you may obtain a list of 28 information sources in California. This would supply the information for having each student write to a different area seeking information on that specific area of California. The students could also write to other schools by sending their letters through the Superintendent of Schools of the town to which they are writing.
6. Show and discuss the Nystrom cards. Discuss any terminology the students do not understand and add the words to their scrapbooks.
7. Using the desk maps, have the students locate the accompanying list of locations. You may also want to have the maps colored with pencils according to elevations. Use the U.S. raised relief maps from the library or you may write for California highway maps at 1416 Ninth Street, Sacramento, California.
8. Discuss how the Coastal Mountains and Sierra Nevada Mountains affect the climate of California.

Student Activities

1. Have a few of the students try to create a clay mold of California.
2. Each student will write to at least one information source seeking information on a specific area.
3. Create a bulletin board with the information, pictures, and maps received from the letters sent out.
4. On a large sheet of paper draw the state of California, noting all the places written to and places of geographical interest as well as agricultural and industrial value.
5. Write to pen-pals in California schools--choose a wide variety of schools so as to gain more diverse types of information.
6. Make a list of the different tourist attractions and how they differ from one end of California to another.
7. Each student will plan his own vacation to an area of California, explaining which roads he would take as well as which tourist attractions he would stop and see. The student should also figure the round trip mileage. For this activity, highway maps of several different states may be needed.

California

Places to Locate

American River
Colorado River
Great Central Valley
Coastal Mountain Range
Sierra Nevada Mountains
Mojave Desert
Colorado Desert
Salton Sea
Mt. Whitney
San Joaquin River
Sacramento River
Mt. Shasta
Imperial Valley
Santa Cruz Valley
San Pedro
San Bernardino Mountains
Sonoran Desert
Sacramento
San Francisco
Los Angeles
San Diego
Monterey
Santa Barbara
San Bernardino
Barstow

Dams: Trinity
Oroville
San Luis
Shasta
Monticello
Friant
Alamanor
Folsom
Pine Flat

Parks: Yosemite
Kings Canyon
Sequoia
Lassen Vol. National Park

California - Handout

MAP WORK

Use the U. S. Raised Relief Map and reference books to answer the following questions.

1. What ocean borders California? _____
2. What is the capital of California? _____
3. In what year did California become a state? _____
4. What states border California? _____

5. What mountain range lies between California and Nevada? _____

6. What river forms the southeast boundary of California? _____

7. List two important rivers found in Central California. _____
_____, _____
8. What Californian city has a large protective bay for large ships? _____

9. How high is Mt. Whitney? _____
10. How high is Mt. Shasta? _____
11. Is Los Angeles north or south of San Francisco? _____
12. Is San Diego north or south of Los Angeles? _____
13. Is Barstow closer to Los Angeles or San Diego? _____
14. What is the elevation of Death Valley? _____
15. Is Lake Tahoe at a higher or lower elevation than the Salton Sea? _____

16. The lowest point of elevation found in California is found where? _____

17. From what river does the Imperial Valley receive its irrigation water by aqueduct? _____

18. What two major rivers empty their waters into the San Francisco Bay?

_____, _____

19. What two deserts are found in southern California?

_____, _____

20. Name four cities located on the shore of San Francisco Bay.

_____, _____

_____, _____

California - Handout

RESEARCH

1. For what business is San Pedro best known? _____
2. What is a citrus fruit ? (definition) _____

3. What crop is best grown around Salinas? _____
4. Fresno is known all over the world for what crop. _____
5. For what is the Santa Clara Valley known? _____
6. List ten crops grown in California. _____
_____, _____, _____
_____, _____, _____
_____, _____, _____
7. What city is famous for the Golden Gate Bridge? _____
8. In what city is Hollywood found? _____
9. What two mineral products are found in great abundance in California?
_____, _____
10. What was the major job of most of the Spaniards when they came to California? _____
11. In what city is Disneyland? _____
12. In what city is the San Diego Zoo found? _____
13. What season of the year does California receive most of its moisture, either rain or snow? _____
14. Is California larger than Texas? _____
15. Is California larger than Montana? _____
16. List three tourist attractions found in California.

MEXICO

Locations for Desk Maps

Locate and name these places on your desk maps.

Mexico City
San Louis Potosi
Nuevo Laredo
Chihuahua
Mazatlan
Acapulco
Cuidad Juarez
Gulf of Mexico
Pacific Ocean
Baju California
Gulf of California
San Antonio
El Paso
Veracruz
Tampico
Tijuana
Guadalajara
Gulfo de Tehuantepec
Paricutin
Durango
Sierra Madre Occidental
Sierra Madre Del Sur
Sonora Desert

MEXICO

Use the yellow tourist 1973 Mexico maps.

1. What city in Texas is close to Ciudad Juarez? _____
2. What city in Texas is close to Nuevo Laredo? _____
3. What is the capital of Mexico? _____
4. Name the country which borders Mexico on the south. _____

5. What country borders Mexico on the north? _____
6. What river flows from Ciudad Juarez to the Gulf of Mexico, creating the Northern Border of Mexico? _____

7. What do we call this same river in the United States? _____

8. Name the four states which border on Mexico. _____
_____, _____, _____
9. Is Durango north or south of the Tropic of Cancer? _____
10. What is the distance from Durango to Mazatlan? _____
11. What is the distance from Ciudad Juarez to Chihuahua? _____
12. Name the closest line of latitude for each of these locations.

Durango	_____	El Paso	_____
San Luis Potosi	_____	Guadalajara	_____
Aguascalientes	_____	Mochis	_____
Nuevo Laredo	_____	Morelia	_____
Tijuana	_____	Villahermosa	_____
13. Name the closest line of longitude:

Veracruz	_____	Chihuahua	_____
Nuevo Laredo	_____	Cuidad Obregon	_____
Acapulco	_____	Mexicali	_____
Aguascalientes	_____	Cuidad Juarez	_____
Guadlajara	_____		

True or False

- _____ 14. Acapulco borders the Gulf of Mexico.
- _____ 15. Tijuana is the capital of Mexico.
- _____ 16. Puebla is on the border of the United States.
- _____ 17. Tampico is north of Mexico City.
- _____ 18. The Gulf of California is east of Laredo.
- _____ 19. The Tropic of Capricorn passes through Mexico.
- _____ 20. Mexicali is west of Tijuana.
- _____ 21. The Sonoran Desert is on the border of Guatamala.
- _____ 22. Monterrey is south of Nuevo Laredo on the coast of the Gulf of Mexico.
- _____ 23. Mexico is located on the equator.

A-V MATERIALS - MEXICO

Grade 5

16mm films

- 138 - Land of Mexico
- 315 - Mexico: Geography of the Americas
- 772 - Mexico: Land and People
- 832 - Mexico: Land of Color and Contrast
- 1907 - Mexico: Giant of Latin America

Filmstrips

- 737 - North American Partners

WORLD MAP

Materials

1. World desk map
2. Reference maps--either raised relief world maps from library or hanging Denoyer map
3. Handout sheet for raised relief map of world

Procedures

1. Have the students list as many countries as they can, either on the blackboard or at their desks. Make sure each student understands the difference between a country and a state.
2. Review the continents and oceans when each student has a world map to look at.

A-V MATERIALS - WORLD MAP

Grade 5

TRANSPARENCIES

The Confederacy - History 6W

Alaska - Geography 4K

Pacific Coast States - Geography 4J

Rocky Mountain States - Geography 4I

Mexico--Rivers - Geography 8K

Latitude and Longitude:

World Geography Visual No. 1-11 No Overlays

Visual No. 1-12 No Overlays

Visual No. 1-13 No Overlays

Alaska:

World Geography Visual No. 11-1

Mexico:

World Geography Visual No. 11-5

Visual No. 11-6

Visual No. 11-9 With Overlay

Visual No. 11-12 No Overlay

WORLD MAP - ELEVATIONS

Using the world raised relief map and colored pencils, have the students color the world maps according to elevation.

1. Pacific Ocean
2. Atlantic Ocean
3. Arctic Ocean
4. Indian Ocean
5. United States
6. Canada
7. Mexico
8. Brazil
9. Argentina
10. Greenland
11. Russia
12. Australia
13. Africa
14. Alaska
15. Saudi Arabia
16. China
17. India
18. Antarctic
19. Japan
20. Europe
21. Asia
22. Iceland

WORLD - HANDOUT

Using the world raised relief maps, name the countries or states found at these locations.

1. 30° S. latitude, 60° W. longitude _____
2. 45° N. latitude, 105° W. longitude _____
3. Arctic Circle, 150° W. longitude _____
4. 15° S. latitude, 15° E. longitude _____
5. Equator, 15° E. longitude _____
6. 75° N. latitude, 45° W. longitude _____
7. 60° N. latitude, 15° E. longitude _____
8. Arctic Circle, 15° E. longitude _____
9. 60° N. latitude, 90° E. longitude _____
10. 30° N. latitude, 90° E. longitude _____

For each location given, list the degrees latitude and the degrees longitude to find the location.

- | | | |
|----------------|----------------|-----------------|
| 11. Hudson Bay | _____ latitude | _____ longitude |
| 12. Algeria | _____ latitude | _____ longitude |
| 13. France | _____ latitude | _____ longitude |
| 14. Mexico | _____ latitude | _____ longitude |

The capital of each country on this map is underlined. For each country named below, list the capital.

15. United States _____
16. Mexico _____
17. Canada _____
18. Brazil _____
19. Spain _____
20. Nigeria _____
21. England _____
22. Russia _____
23. Italy _____
24. Australia _____
25. Japan _____

26. A group of little red dots is a symbol for what on this map? _____

Name the following deserts according to the location given.

27. Southwestern U. S. and Northern Mexico _____
28. Along the coast of Peru and Chile _____
29. Northern Africa _____
30. Two deserts in Australia _____

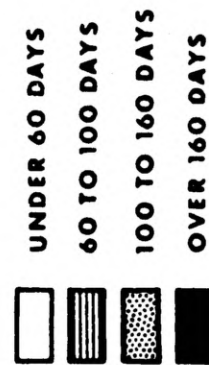
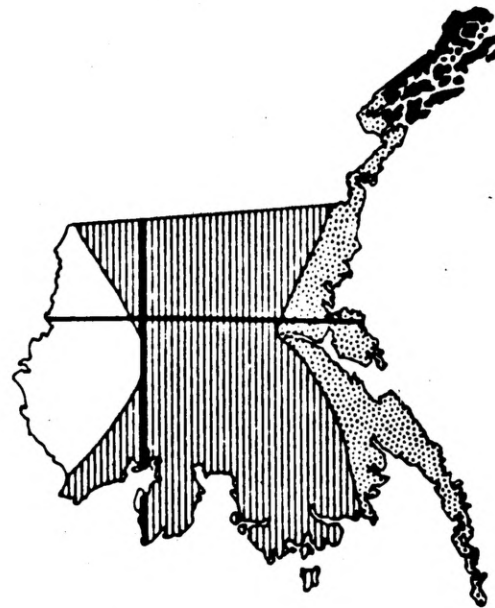
31. Northern China _____

WORLD MAP - ELEVATIONS

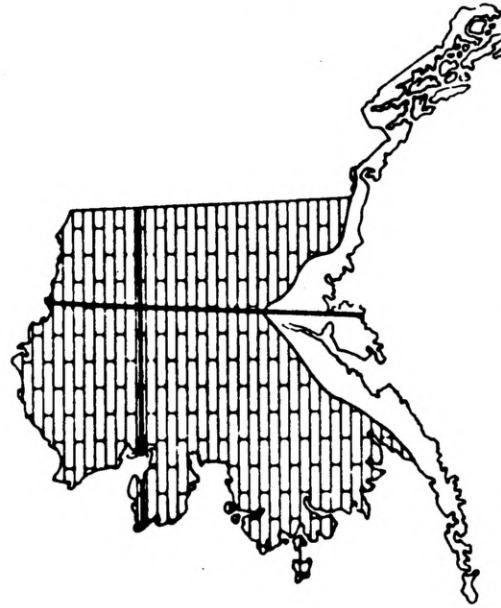
Using the world raised relief map and colored pencils, have the students color the world maps according to elevation.

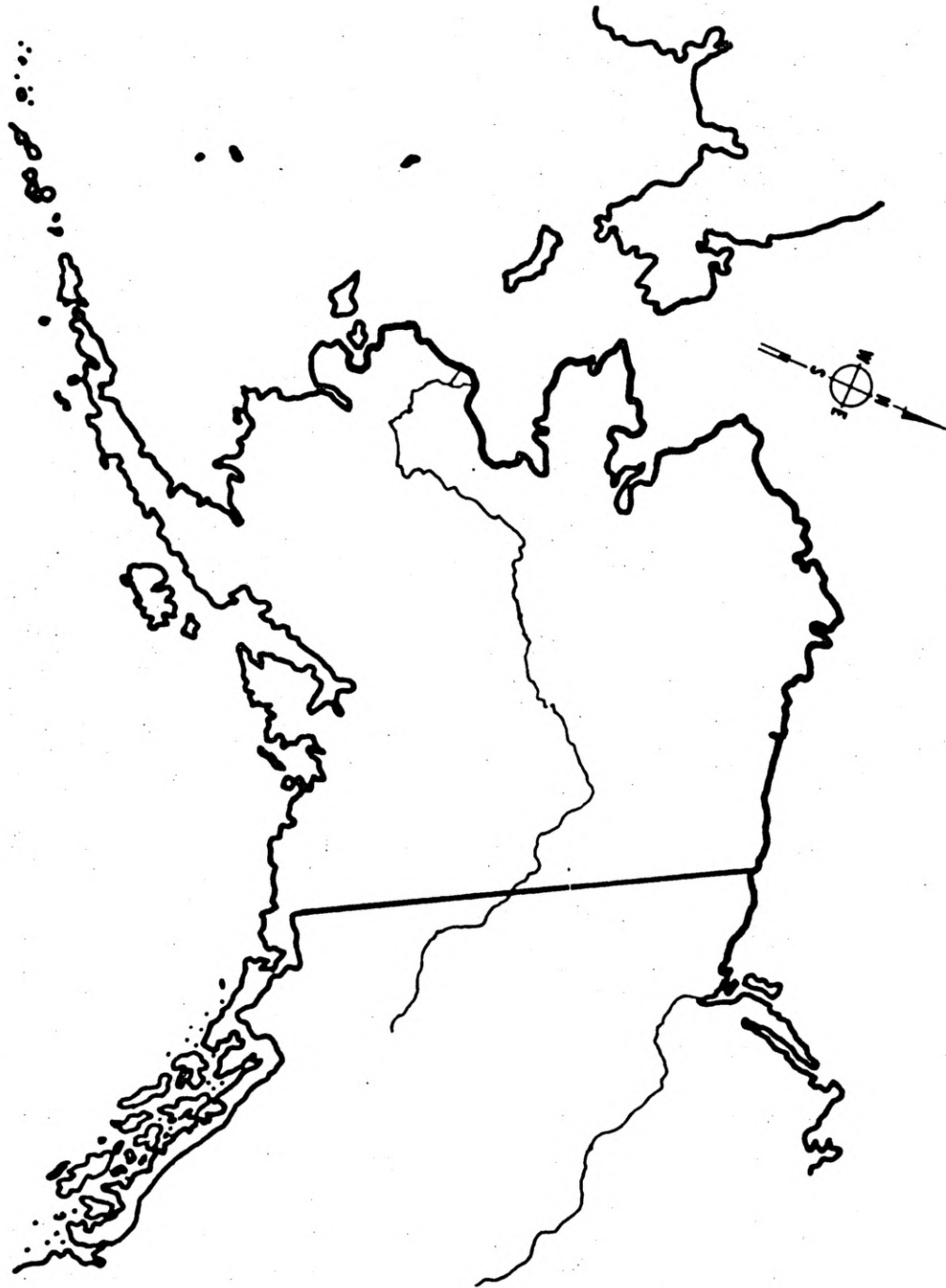
1. Pacific Ocean
2. Atlantic Ocean
3. Arctic Ocean
4. Indian Ocean
5. United States
6. Canada
7. Mexico
8. Brazil
9. Argentina
10. Greenland
11. Russia
12. Australia
13. Africa
14. Alaska
15. Saudi Arabia
16. China
17. India
18. Antarctic
19. Japan
20. Europe
21. Asia
22. Iceland

GROWING SEASON PERMAFROST AREA



N ↑





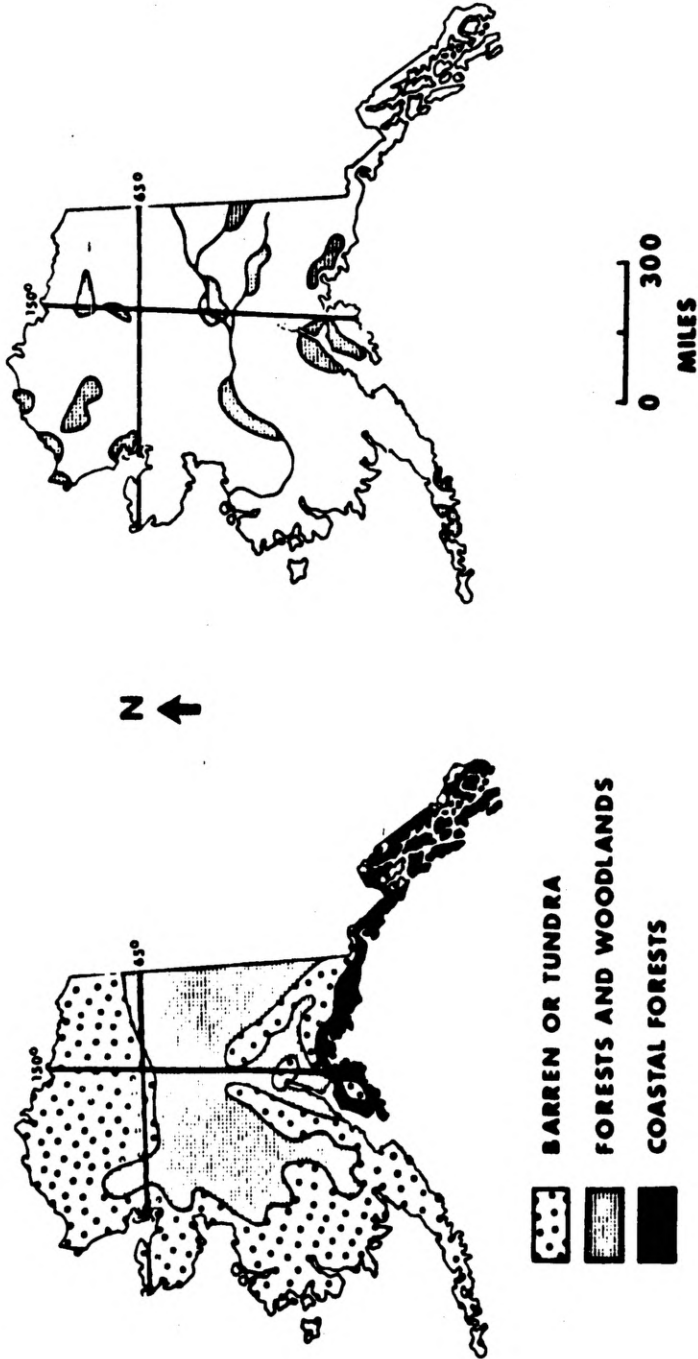
POPULATION MAJOR CITIES



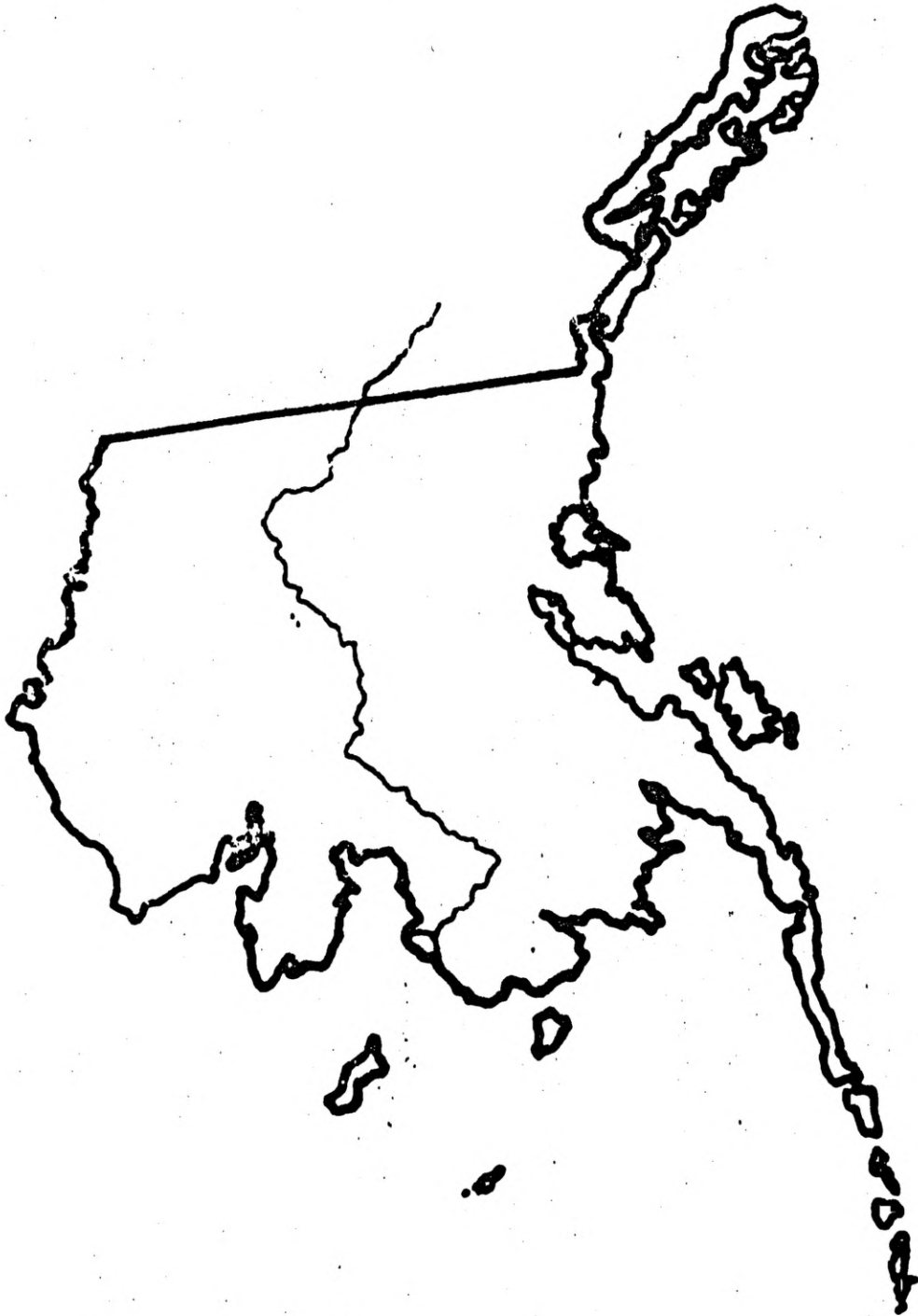
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WORLD GEOGRAPHY

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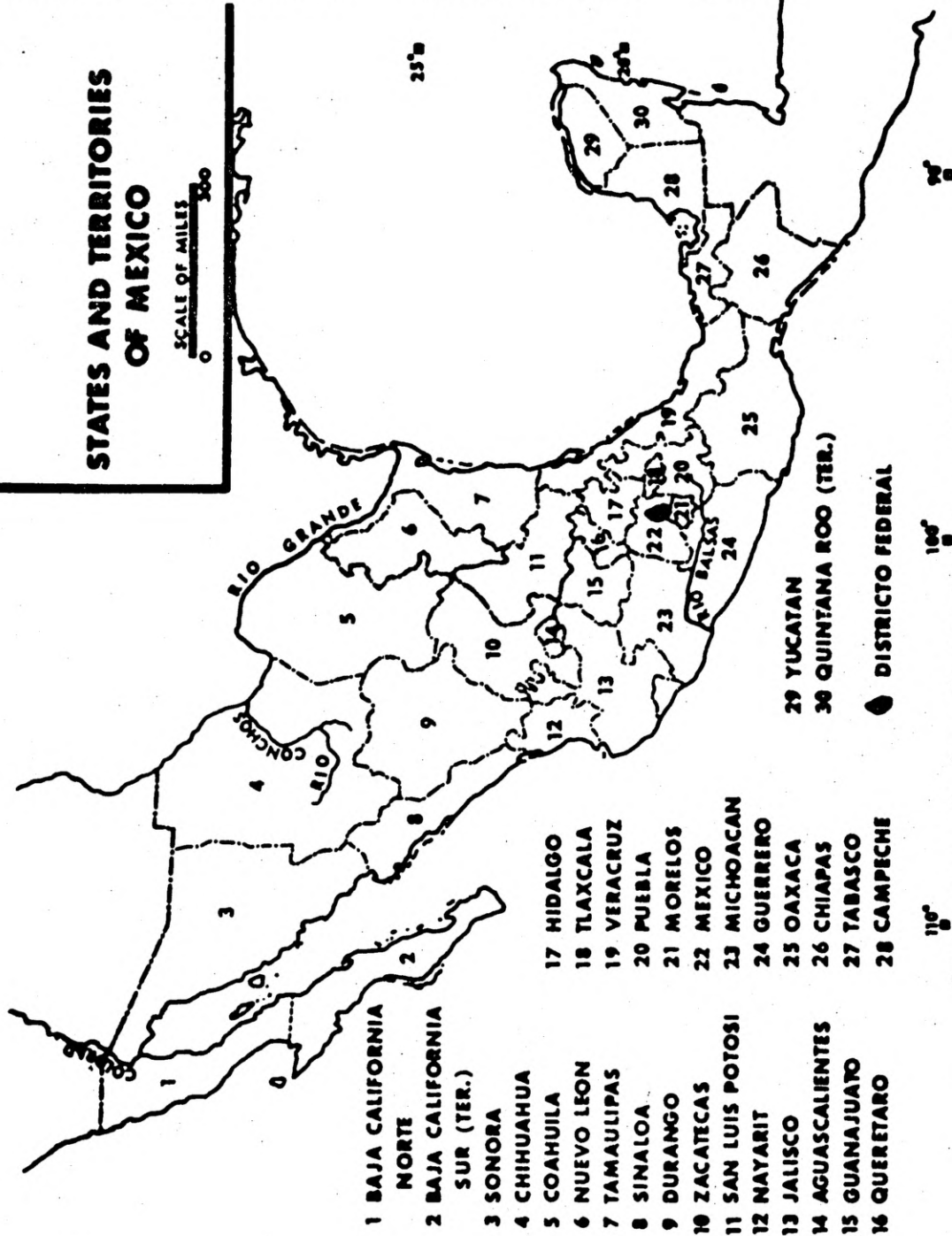
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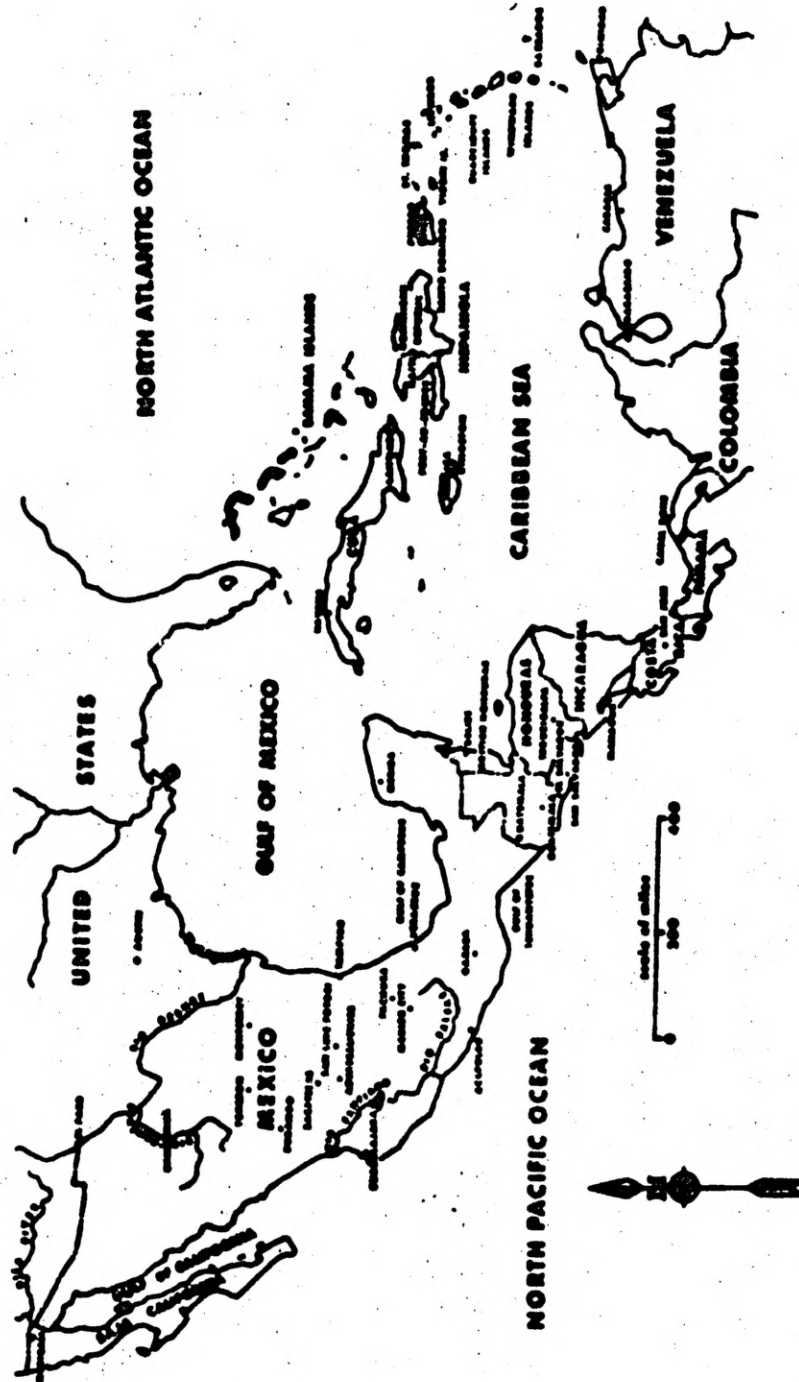


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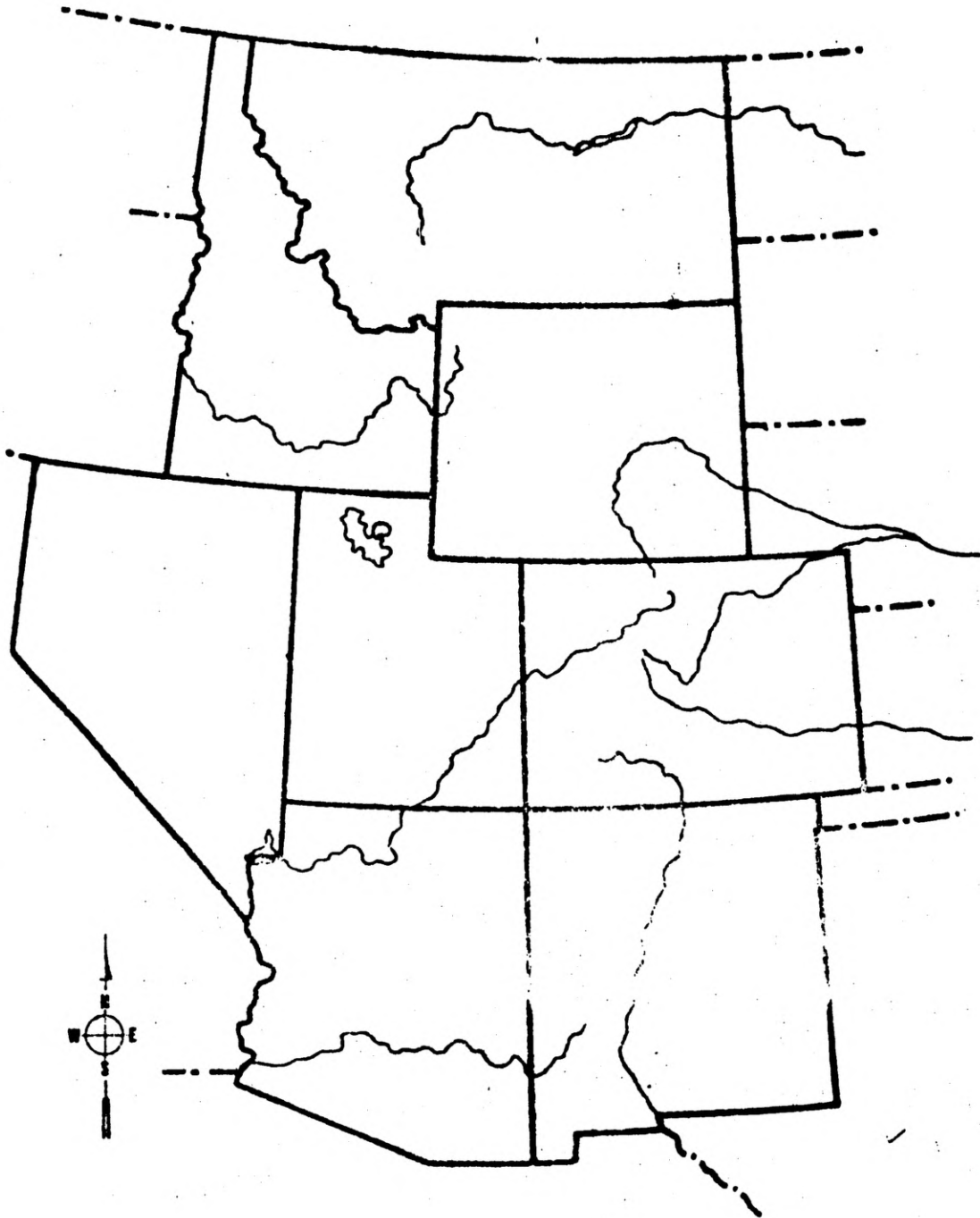
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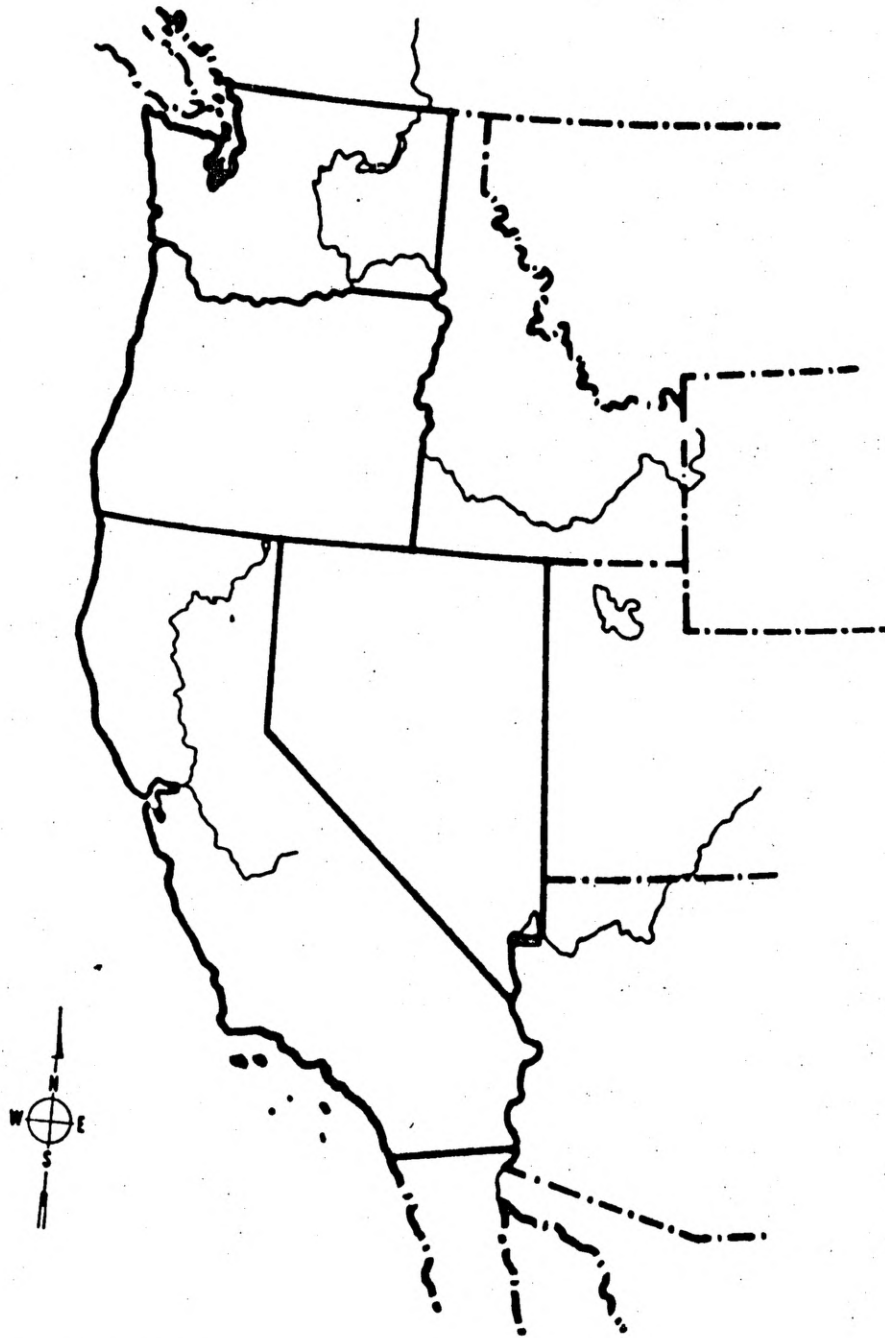
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MIDDLE AMERICA



Texas Transparency Development Project U. S. O. E. Contract OE 3-16-040



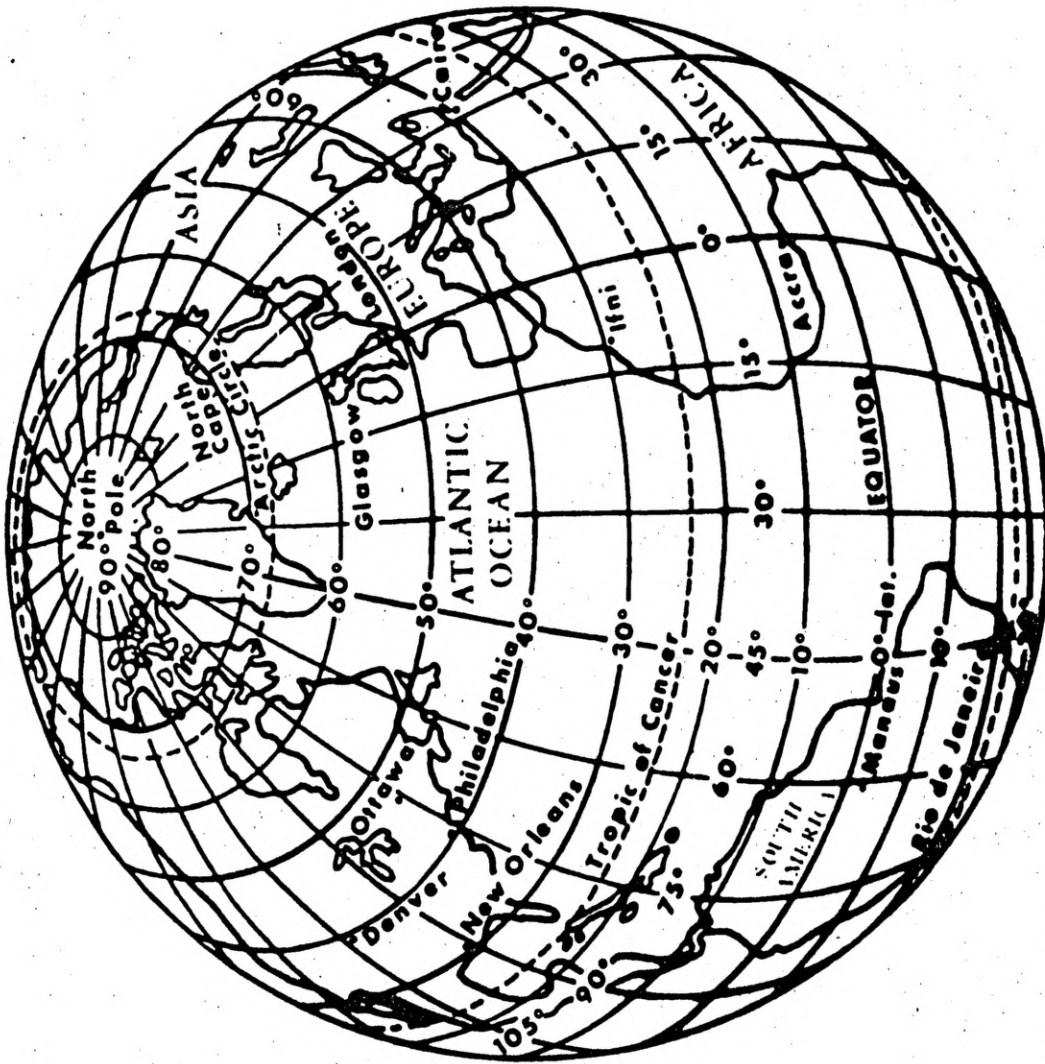




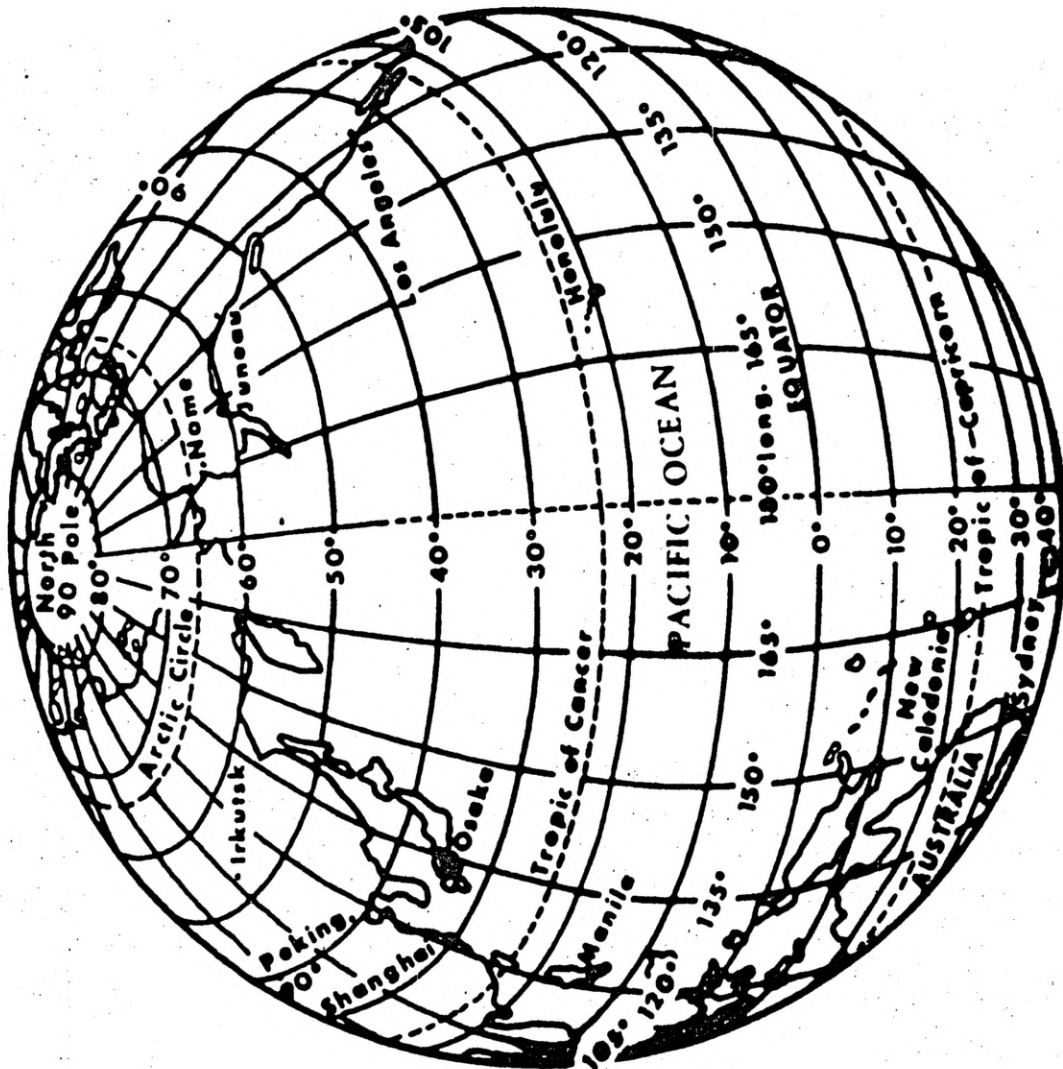
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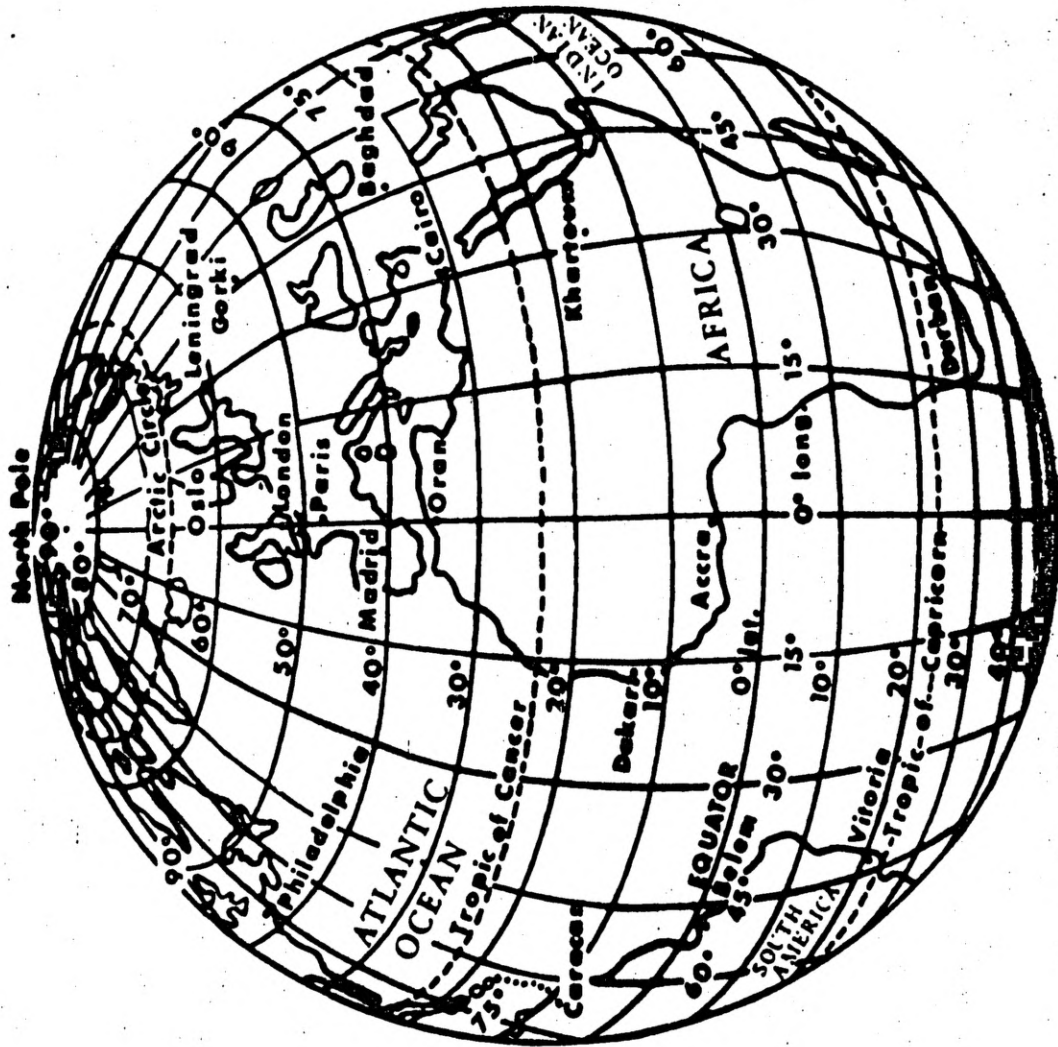
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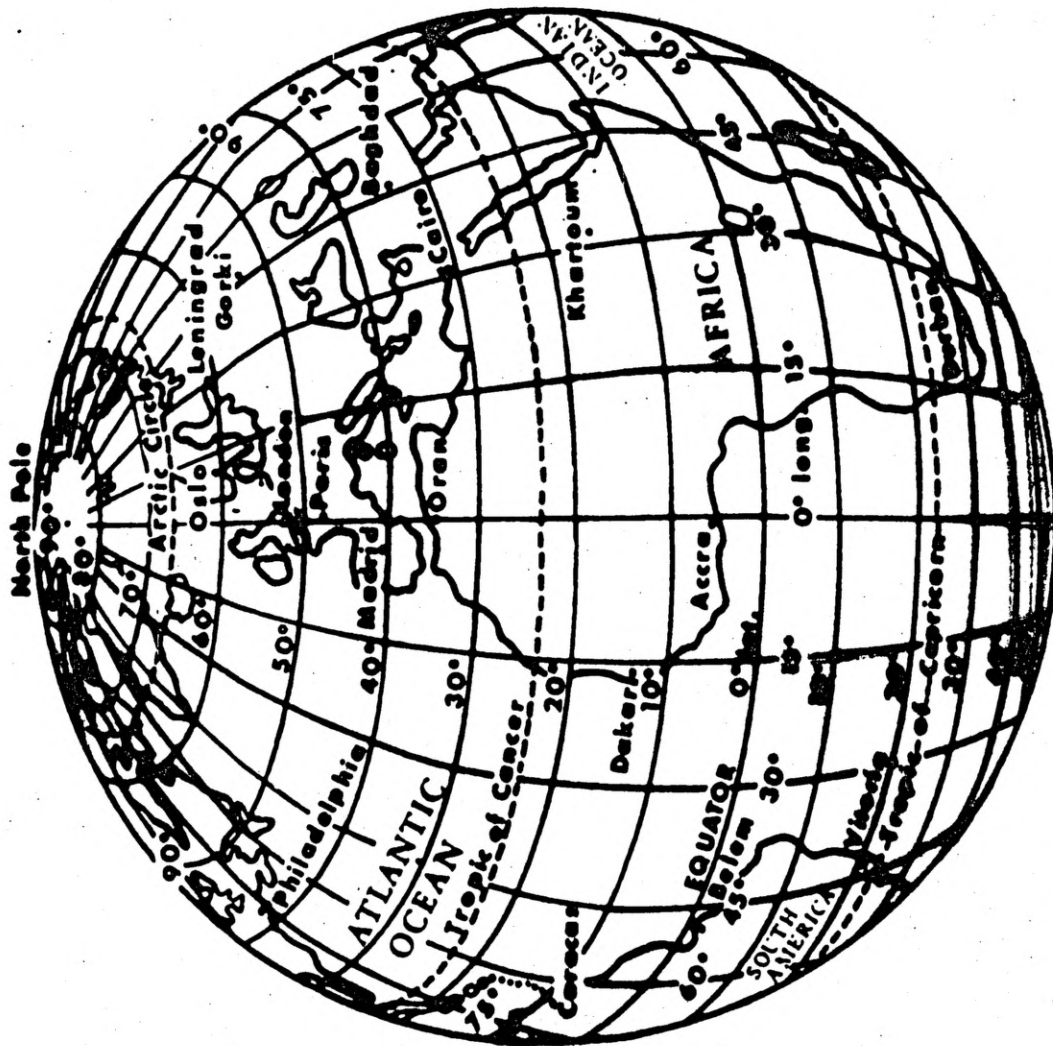


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Name _____

WORD SEARCH PUZZLE

Around the World

Have you ever had a wish to go around the world? Now you can, simply by finding the names of 38 countries and 3 continents in the diagram.

Africa
Arabia
Asia
Australia
Austria
Belgium
Bolivia
Brazil
Burma
Canada
Chile
China
Czechoslovakia
Denmark
Ecuador
Egypt
England
Finland
France
Germany
Greece
India
Iran
Iraq
Ireland
Italy
Japan
Laos
Libya

L	O	D	N	A	L	N	I	F	K	A	A	Y	A
O	I	I	A	I	S	A	O	R	M	I	S	A	I
C	C	Z	R	O	B	G	A	R	S	Y	A	U	L
H	J	I	A	A	E	M	U	S	W	L	I	G	A
I	A	L	X	R	N	B	U	I	R	A	R	U	R
L	P	T	M	E	B	R	N	I	I	T	Y	R	T
E	A	A	D	T	M	D	I	R	G	I	S	U	S
A	N	I	H	C	N	P	T	J	G	L	R	W	U
Y	S	G	T	A	O	S	E	A	R	K	E	P	A
S	N	P	L	L	U	M	D	P	E	D	C	B	I
A	E	E	A	A	A	A	S	Y	E	I	U	A	V
C	R	N	P	I	N	I	T	N	C	R	A	Y	I
I	D	O	B	A	N	D	A	P	E	A	D	B	L
R	V	A	C	C	L	N	T	P	Y	Q	O	I	O
F	R	A	N	C	E	I	E	L	O	G	R	L	B
A	I	K	A	V	O	L	S	O	H	C	E	Z	C

Mexico
Nepal
Norway
Peru
Poland
Russia
Spain
Sweden
Syria
Turkey
United States
Uruguay

Find the words by reading up, down, backwards and diagonally. Good luck!

APPENDIX B

Answer Keys to Map Study Skills Unit

REVIEW OF DIRECTIONS

Name _____

Use the directions north, south, east or west to fill in the blanks.

1. Cuba is an island SOUTH of the United States.
2. Alaska is WEST of Canada.
3. The largest part of Africa is located NORTH of the Equator.
4. Europe is a continent found NORTH of Africa.
5. France is NORTH of the Mediterranean Sea.
6. The island country of England is EAST of the United States.
7. The Tropic of Capricorn is SOUTH of the equator.
8. The Antarctica Circle is SOUTH of the equator.
9. The Tropic of Cancer is $22\frac{1}{2}^{\circ}$ NORTH of the equator.
10. Australia is SOUTH of the equator.
11. The Pacific Ocean is WEST of Mexico.
12. The Pacific Ocean is NORTH and SOUTH of the equator.
13. The Arctic Ocean is NORTH of Greenland.
14. The Indian Ocean is found EAST of Africa and NORTH of Australia.
15. Greenland is NORTH of South America.
16. The country SOUTH of the Black Sea is Turkey.
17. Florida is a state just NORTH of Cuba.
18. The Atlantic Ocean is EAST of North America.
19. Africa and Europe are both on the EAST side of the Atlantic Ocean.
20. Japan is NORTH of Australia.
21. In the North American Continent, the Rocky Mountains run NORTH and SOUTH on the map.
22. The Mississippi River runs NORTH and SOUTH.
23. The Yukon River found in Alaska runs EAST and WEST.
24. The Great Lakes are SOUTH of Hudson Bay.
25. Hudson Bay is NORTHEAST of the Gulf of Mexico and SOUTHEAST of Alaska.

CONTINENTS AND OCEANS

Name _____

1. Mexico and the United States are in what continent? NORTH AMERICA
2. AFRICA is the continent where Egypt is located.
3. Spain, France and Italy are three countries found in the continent of EUROPE
4. The large continent south of the U. S. is SOUTH AMERICA
5. China, India and Vietnam are found in the continent of ASIA
6. The island continent of AUSTRALIA is found south of the equator.
7. The continent found farthest to the south is ANTARCTICA
8. There are (how many?) SEVEN continents.
9. List all the continents: NORTH AMERICA, SOUTH AMERICA, AFRICA,
EUROPE, ANTARCTICA, AUSTRALIA, ASIA
10. What ocean borders North and South America, Australia and Asia? PACIFIC
11. What ocean is found east of the United States and west of Africa? ATLANTIC
12. What ocean is east of Africa and west of Australia? INDIAN
13. Which ocean is found north of Greenland? ARCTIC
14. Which oceans are both north and south of the equator? PACIFIC,
ATLANTIC, INDIAN
15. Which ocean is found both in the eastern and western hemispheres? PACIFIC
16. Which ocean is found only in the western hemisphere? ATLANTIC
17. Which ocean is found only in the eastern hemisphere? INDIAN
18. Which ocean is only in the northern hemisphere? ARCTIC
19. How many oceans are there? FOUR
20. List all of the oceans: PACIFIC, ATLANTIC, INDIAN, ARTIC
21. Greenland borders which two oceans? ARCTIC, ATLANTIC
22. Australia borders which two oceans? PACIFIC, INDIAN
23. Africa borders on which two oceans? ATLANTIC, INDIAN
24. Alaska borders on which two oceans? ARCTIC, PACIFIC
25. Which ocean or oceans does the equator pass through? PACIFIC,
ATLANTIC, INDIAN

Name _____

Natural Land Forms

Use the world raised relief map.

1. What mountains run the length of Chile, Peru and Argentina? ANDES
2. What desert is located in Chile? ATACAMA
3. What hills are found at 45° N. lat., 105° W. long.? BLACK HILLS
4. Name two mountain ranges in Alaska. ALASKA, BROOKS
5. Which sea borders both Sweden and Finland? BALTIC
6. What desert covers northern Africa? SAHARA
7. The Great Victoria Desert is located in what country? AUSTRALIA
8. The Alps are located in which continent? EUROPE
9. Turkey separates which two seas? BLACK, MEDITERRANEAN
10. The Red Sea borders on which four countries? ARABIA, SUDAN, EGYPT, ETHIOPIA
11. Which high mountain range is located mainly in China? HIMALAYAS
12. Mt. McKinley is found on which continent? NORTH AMERICA
13. Which mountain range is found in Australia? GREAT DIVIDING
14. The Ural Mountains are found in which country? RUSSIA
15. The Persian Gulf borders on which two countries? IRAN, ARABIA

Name _____

ALASKA - REVIEW QUIZ

1. Fairbanks is found on the TANANA River.
2. The BEAUFORT, BERING Sea is found west of Alaska.
3. The YUKON River runs east-west through the complete state of Alaska.
4. Name the two bays to the north and to the south of Seward's Peninsula.
KOTZEBUE, BRISTOL, NORTON SOUNDS, GOOD HOPE BAY
5. Name the game preserve on Nunivak Island. NUNIVAK NATIONAL WILDLIFE REFUGE
6. What is the large mountain in the northern half of Alaska. BROOKS RANGE
7. Name the mountain range south of Fairbanks. ALASKA RANGE
8. What is the monument west of Juneau? GLACIER BAY
9. Name the body of water south of Alaska. GULF OF ALASKA
10. Name the body of water north of Alaska. ARCTIC OCEAN
11. Name the first two sets of mountains north of the city of Cordova.
CHUGCH, WRANGELL
12. Name the four sets of mountains that make up the Brooks Range.
BAIRD, ENDICOTT, SCHWATKA, PHILIP SMITH
13. Name two islands found west of Alaska in the Bering Sea. ST. LAWRENCE, NUNIVAK
14. Name the game preserve in the northeastern corner of Alaska. ARCTIC NAT. WILDLIFE REFUGE
15. Name the ocean found south of Alaska. PACIFIC OCEAN - GULF OF ALASKA
16. Name the large island south of Anchorage in the Gulf of Alaska. KODIAK
17. Name the bay just north of the Alaska Peninsula. BRISTOL BAY
18. What national park is found north of Anchorage? MT. MCKINLEY NATIONAL PARK
19. What is the capital of Alaska? JUNEAU
20. One inch is equal to approximately how many miles on this map? 75 MILES
21. What peninsula is found south of Anchorage? KENAI PENINSULA

-2-

22. Using the Alaska Mileage Chart what are the following distances:

Great Falls to Anchorage	<u>2527</u>
Fairbanks to Great Falls	<u>2404</u>
Fairbanks to Anchorage	<u>358</u>
Great Falls to Seward	<u>2656</u>
New York to Anchorage	<u>4768</u>
Seattle to Dawson Creek	<u>842</u>

23. Using the Index of Cities and Towns give the letter and number of its location on the map. Also list its population.

<u>TOWN</u>	<u>POPULATION</u>	<u>LETTER</u>	<u>NUMBER</u>
Circle	54	C	9
Anchorage	48,081	D	8
Sitka	3,370	E	12
Fairbanks	14,771	C	9
Juneau	13,556	D	12
Hope	51	D	8

Name _____

True and False - Use highway map.

1. F There is a road between College and Galena.
2. T Point Hope is north of Seward Peninsula.
3. T Brooks Range is east of Point Hope.
4. F Juneau is southwest of Ketchikan.
5. F Sitka is the capital of Alaska.
6. F Kuskokwin River is north of the Yukon River.
7. T Arctic Ocean is north of the Bering Sea.
8. T To go from Anchorage to Fairbanks you have to pass through the Alaskan Range.
9. F Yukon River flows north and south.
10. F The International Date Line is east of Alaska.
11. F Canada is to the west of Alaska.
12. F Prince Rupert borders on the Bering Sea.
13. F Mt. McKinley is 38,453 feet tall.
14. T Kenai is found bordering the Cook Inlet.
15. F St. Lawrence Island is found beside Bristol Bay.
16. T The Yukon River enters into the Bering Sea.
17. F Fort Yukon is on the Kuskokwin River.
18. F Cordova is found on Bristol Bay.
19. F The Wrangell Mountains are part of the Brooks Range.
20. T Douglas is south of Juneau.
21. F Arctic slope is south of the Yukon River.
22. F The Alaskan Peninsula is in the Arctic Ocean.
23. F The Tongass National Forest borders on the Pacific Ocean.
24. F Point Barrow is south of Point Hope.
25. F Alaska is the second largest state in the union.

Name _____

Alaska - Handout

Use the Alaska Highway Map to answer these questions.

1. How many miles are equal to one inch? APPROXIMATELY 75
2. What is the large peninsula in the middle of the western coast of Alaska? SEWARD
3. What five different groups of mountains make up the Brooks Mountain Range?
DE LONG, BAIRD, SCHWATHA, ENDICOTT, PHILIP SMITH
4. What mountains are found at 62° latitude and 144° longitude? WRANGELL
5. What mountains are located near 62° latitude, 148° longitude? TALKESTNA
6. Name the lake found on the Arctic Circle and 160° longitude? SALAWIK
7. What glacier is found next to the capital of Juneau? MENDENHALL
8. What large island is found near 58° latitude and 152° longitude? KODIAK
9. How far is it from Anchorage to Fairbanks? 360 MILES
10. What large river passes through the middle of Alaska into Canada? YUKON
11. What are the two seas found to the west of Alaska? BERING, CHUKCHI
12. What mountains are found west of Fairbanks? KUSKOKWIM
13. What mountains are found south of Fairbanks? ALASKA RANGE
14. Name the river found at 62° latitude, 160° longitude. YUKON
15. Name the river found at 66° latitude, 144° longitude. YUKON
16. What national park is found along Highway 3 between College and Anchorage?
MT. MCKINLEY NATIONAL PARK
17. On what peninsula is the city of Kenai found? KENAI
18. Give the latitude and longitude which intersect on Seward Peninsula. 66° LAT.
164° LONG.
19. Name the latitude and longitude of Bristol Bay. 58° LAT. - 160° LONG.
20. Are the roads paved from Fairbanks all the way to Anchorage? YES to Juneau? NO
21. Is there a road from Fairbanks to Nome? NO
22. What is the symbol for glaciers? 
23. What is the population of Fairbanks? 14,771 of Juneau? 13,556 of Anchorage? 48,081
24. What sea and what ocean are located north of Alaska? BEAUFORT SEA, ARCTIC OCEAN
25. What country is east of Alaska? CANADA

ANSWER KEY - MAP SKILLS
GRADE 5

U. S. Study

Use the U. S. raised relief maps from the library.

1. Name two states which are entirely 0-500 feet in elevation.
LOUISIANA , FLORIDA
2. Which state has the most area above 10,000 feet?
COLORADO
3. Which three states west of the Mississippi River have the lowest elevations?
CALIFORNIA , OREGON , WASHINGTON
4. Which two states border on the Sierra Nevada Mountain Range?
CALIFORNIA , NEVADA
5. Name five states which would be included in the Great Plains.
SOUTH DAKOTA , NEBRASKA , KANSAS , WYOMING ,
MONTANA , COLORADO , OKLAHOMA , TEXAS
6. Name four states which contain the Rocky Mountains.
MONTANA , WYOMING , IDAHO ,
UTAH , COLORADO , NEW MEXICO
7. Name five states which contain the Appalachian Mountains.
TENNESSEE , NORTH CAROLINA , KENTUCKY , WEST VIRGINIA , SOUTH CAROLINA ,
ALABAMA , NEW YORK , PENNSYLVANIA , MARYLAND , VIRGINIA
8. Name five states on the Gulf of Mexico.
MISSISSIPPI , TEXAS , LOUISIANA , ALABAMA , FLORIDA
9. Which three states border the Pacific Ocean?
CALIFORNIA , WASHINGTON , OREGON , ALASKA , HAWAII
10. Which states border Canada?
WASHINGTON , NORTH DAKOTA , IDAHO , MONTANA ,
PENNSYLVANIA , MINNESOTA , VERMONT , MICHIGAN ,
OHIO , NEW HAMPSHIRE , NEW YORK , MAINE

U. S. Map Review

Use raised relief maps of the U. S.

Name the state where each of these locations may be found.

Black Rock Desert	NEVADA	Mojave Desert	CALIFORNIA
Pikes Peak	COLORADO	Salmon River Mountains	IDAHO
Badlands	SOUTH DAKOTA	Mt. Olympia	WASHINGTON
Everglades	FLORIDA	Las Vegas	NEVADA
Baton Rouge	LOUISIANA	Nashville	TENNESSEE
Montgomery	ALABAMA	Indianapolis	INDIANA
Des Moines	IOWA	Austin	TEXAS

Name the capital of the state where these coordinates are located.

30° N. lat. - 100° W. long.	AUSTIN
35° N. lat. - 95° W. long.	OKLAHOMA CITY
48° N. lat. - 107° W. long.	HELENA
37° N. lat. - 87° W. long.	NASHVILLE
33° N. lat. - 83° W. long.	ATLANTA
45° N. lat. - 90° W. long.	MADISON
40° N. lat. - 85° W. long.	INDIANAPOLIS
35° N. lat. - 80° W. long.	RALEIGH
35° N. lat. - 110° W. long.	PHOENIX
40° N. lat. - 115° W. long.	LAS VEGAS

Tell whether or not the state is east or west of the Mississippi River and north or south of 40° N. lat.

	East or West	North or South
Montana	WEST	NORTH
Mississippi	EAST	SOUTH
Illinois	EAST	ON IT
Oklahoma	WEST	SOUTH
Pennsylvania	EAST	NORTH
Kansas	WEST	SOUTH
Wyoming	WEST	NORTH
Alaska	WEST	NORTH
Maine	EAST	NORTH
New York	EAST	NORTH

CALIFORNIA - HANDOUT
MAP WORK

Use the U. S. Raised Relief Map and reference books to answer the following questions.

1. What ocean borders California? PACIFIC
2. What is the capital of California? SACRAMENTO
3. In what year did California become a state? 1850
4. What states border California? OREGON, NEVADA, ARIZONA
5. What mountain range lies between California and Nevada? SIERRA NEVADAS
6. What river forms the southeast boundary of California? COLORADO RIVER
7. List two important rivers found in central California. SAN JOAQUIN, SACRAMENTO
8. What Californian city has a large protective bay for large ships? SAN FRANCISCO
9. How high is Mt. Whitney? 14,995 FEET
10. How high is Mt. Shasta? 14,161 FEET
11. Is Los Angeles north or south of San Francisco? SOUTH
12. Is San Diego north or south of Los Angeles? SOUTH
13. Is Barstow closer to Los Angeles or San Diego? LOS ANGELES
14. What is the elevation of Death Valley? 280 or 282 FEET
15. Is Lake Tahoe at a higher or lower elevation than the Salton Sea? HIGHER
16. The lowest point of elevation found in California is found where? DEATH VALLEY
17. From what river does the Imperial Valley receive its irrigation water by aquaduct?
COLORADO RIVER
18. What two major rivers empty their waters into the San Francisco Bay?
SACRAMENTO, SAN JOAQUIN
19. What two deserts are found in southern California? MOJAVE, SONORAN
20. Name four cities located on the shore of San Francisco Bay.
SAN FRANCISCO, BERKLEY, OAKLAND, RICHMOND

MEXICO

Use the yellow tourist 1973 Mexico Maps

1. What city in Texas is close to Ciudad Juarez? EL PASO
2. What city in Texas is close to Nuevo Laredo? LAREDO
3. What is the capital of Mexico? MEXICO CITY
4. Name the country which borders Mexico on the south. GUATEMALA
5. What country borders Mexico on the north? UNITED STATES
6. What river flows from Ciudad Juarez to the Gulf of Mexico, creating the northern border of Mexico? RIO BRAVO - DEL NORTE
7. What do we call this same river in the United States? RIO GRANDE
8. Name the four states which border on Mexico. CALIFORNIA, ARIZONA, TEXAS, NEW MEXICO
9. Is Durango north or south of the Tropic of Cancer? NORTH
10. What is the distance from Durango to Mazatlán? 318 MILES
11. What is the distance from Ciudad Juarez to Chihuahua? 378 MILES
12. Name the closest line of latitude for each of these locations:

Durango <u>24°</u>	Guadalajara <u>20°</u>
San Luis Potosí <u>22°</u>	Mochis <u>26°</u>
Aquascalientes <u>22°</u>	Morelia <u>20°</u>
Nuevo Laredo <u>28°</u>	Villahermosa <u>18°</u>
Tijuana <u>32°</u>	El Paso <u>32°</u>
13. Name the closest line of longitude:

Veracruz <u>96°</u>	Chihuahua <u>106°</u>
Nuevo Laredo <u>100°</u>	Ciudad Obregon <u>110°</u>
Acapulco <u>100°</u>	Mexicali <u>116°</u>
Aquascalientes <u>102°</u>	Ciudad Juarez <u>106°</u>
Guadalajara <u>104°</u>	

MEXICO (cont.)

-2-

True or False:

14. F Acapulco borders the Gulf of Mexico.
15. F Tijuana is the capital of Mexico.
16. F Puebla is on the border on the United States.
17. T Tampico is north of Mexico City.
18. F The Gulf of California is east of Laredo.
19. F The Tropic of Capricorn passes through Mexico.
20. F Mexicali is west of Tijuana.
21. F The Sonoran Desert is on the border of Guatamala.
22. F Monterrey is south of Nuevo Laredo on the coast of the Gulf of Mexico.
23. F Mexico is located on the equator.