

DOCUMENT RESUME

ED 069 566

SO 002 738

TITLE Latin America: Introduction and Summary. Grade Five (Unit 7). Resource Unit. Project Social Studies.

INSTITUTION Minnesota Univ., Minneapolis. Project Social Studies Curriculum Center.

SPONS AGENCY Office of Education (DHEW), Washington, D.C.

PUB DATE [70]

NOTE 372p.

EDRS PRICE MF-\$0.65 HC-\$13.16

DESCRIPTORS *Area Studies; Case Studies; City Problems; Concept Teaching; Cross Cultural Studies; Curriculum Guides; Elementary Grades; *Geographic Concepts; *Geographic Regions; Geography Instruction; Grade 5; *Human Geography; Inquiry Training; Latin American Culture; Map Skills; Population Distribution; Resource Units; Sequential Programs; *Social Studies Units; Urban Studies

IDENTIFIERS *Project Social Studies

ABSTRACT

The last of three main parts designed for fifth grade students, resource unit seven provides an overview of patterns of Latin America and a system of regionalization for the total area on the basis of population composition. Following the overview, a series of case studies arranged in separate sub-units on Buenos Aires, Manaus, Sao Paulo, Chile, and Cuzco illustrate different population compositions and other regional differences. After completing the case studies students turn to culminating procedures on Latin America as a whole and, further, generalize previously learned concepts to the entire course. The teacher's guide provides program descriptions, course objectives, teaching strategies, and an explanation of format in ED 062 226. Other related documents are ED 061 134, ED 062 227, and SO 002 732 through SO 002 741. (Several pages may be illegible.) (Author/SJM)

167
C1

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIG-
INATING IT. POINTS OF VIEW OR OPIN-
IONS STATED DO NOT NECESSARILY
REPRESENT OFFICIAL OFFICE OF EDU-
CATION POSITION OR POLICY

Grade Five
Unit VII: LATIN AMERICA: INTRODUCTION AND SUMMARY

ED 069566

Sp 002728

RESOURCE UNIT

These materials were developed by the Project Social Studies Curriculum Center of the University of Minnesota under a special contract with the Cooperative Research Division of the United States Office of Education. (Project HS-045).

FILMED FROM BEST AVAILABLE COPY

INTRODUCTION

Latin America is introduced with a general overview of population distribution, topography, climatic features, and population composition. Pupils then look at a possible regionalization of Latin America on the basis of population composition which has affected culture regions.

Following the overview, the class should turn to individual case studies which illustrate these different regions as well as other differences within Latin America. Buenos Aires serves as a case study of a region populated primarily by people of European descent as well as a rich agricultural region. Manaus serves as a case study of a tropical forest region populated largely by Non-Andean Indians, with white people dominating the economy. Sao Paulo presents a case study of the most rapidly growing city in Latin America--a city of mixed population, with a large percentage of Negroes. The city received much of its impetus for growth from the coffee plantations in the hinterland. The case study on Chile illustrates a country with three markedly different physical regions and a predominantly mestizo culture. Cuzco, on the other hand, presents a case study of the Andean Indian culture.

Preferably, the class will study most of these case studies. If pupils have come through the Center's first grade course, they can omit the case study on Cuzco, or at least study it very briefly. Some teachers may wish to divide the case studies up among different groups. If so, they should develop study sheets requiring pupils to study maps, set up hypotheses, and then check their hypotheses against data rather than just reading textbook accounts and other references. If time is a problem, it would probably be more to the point to select only two of the case studies and omit the others. If this is done, one should probably be Manaus. The other should be either Sao Paulo or Buenos Aires. Sao Paulo might be preferable because it provides pupils with information about a completely different crop than one which they have studied in the past. However, Buenos Aires would provide for a depth study of at least one other large country in Latin America.

Once the class has completed the case studies, the teacher should use some of the culminating activities for Latin America as a whole and for the entire course. These are included at the end of this introductory section on Latin America.

OBJECTIVES

GENERALIZATIONS

1. Phenomena are distributed unevenly over the earth's surface, resulting in great diversity or variability from one place to another.
 - a. Unevenly-distributed phenomena form distinctive patterns on the map.
 - b. Maps make it possible to discern patterns and relationships among a vast amount of data.
2. A region is an area which has some degree of internal unity or homogeneity and which differs in significant respects from adjoining areas.
 - a. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.
 - b. Regions are delimited on many different bases, depending upon the purpose of the study. Some are delimited on the basis of a single phenomenon, some on the basis of multiple phenomena, and some on the basis of functional relationships.

3. Temperature varies from the warm water to the cold water. Physical features tend to remain in the same direction.
 - a. Temperature variations tend to be the same.
 - b. Temperature is affected by latitude near the equator.
 - c. Places near the equator have higher temperatures than those near the poles.
4. Rainfall is a function of latitude and altitude. Physical features tend to remain in the same direction.
5. Man uses his knowledge of his own levels of technology.
 - a. The technology of man is limited by the technology of the time.

-i-

OBJECTIVES

unevenly over
ting in great-
ty from one

phenomena form
n the map.

to discern pat-
among a vast

has some degree
ogeneity and which
pects from ad-

one or more
The core area
but there are
boundaries
rent regions.

n many differ-
on the purpose
delimited on
phenomenon, some
e phenomena,
f functional

3. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, prevailing winds, physical features which block winds from certain directions, ocean currents, etc.
 - a. Temperature is affected in part by elevation; air is cooler at higher elevations than at lower elevations if latitude and distance from the sea are the same.
 - b. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.
 - c. Places in the interior of continents tend to have greater extremes of temperature than places along the coast.
4. Rainfall is affected by distance from bodies of water, wind direction, temperature, physical features which block winds carrying moisture, and ocean currents.
5. Man uses his physical environment in terms of his cultural values, perceptions, and levels of technology.
 - a. The topography of an area may present limitations given a specific level of technology.

b. A number of factors -- climate, surface features, natural resources, accessibility, and history -- affect settlement and growth patterns.

1) Men carry on more activities on plains than in hills and more in hills than in mountains except in the low latitudes where climate at lower elevations leads people to seek cooler areas in the highlands.

2) Relatively moist areas tend to have a higher population density than dry areas, although too much moisture may lead to low population densities. Population distribution reflects man's values and his technology as well as physical features of an area.

6. The nations of the world are interdependent.

7. Ways of living differ from one society to another.

8. When people migrate from one place to another, they carry with them material objects and culture.

9. Geographers seek information about areas on the earth's surface which enables them to compare, synthesize, and generalize about these areas.

a. Geographers place the map

ATTITUDES

1. Is sceptical
considers
change in

2. Is curious

SKILLS

1. Sets up

2. Interpret

3. Interpret

4. Reads rap

5. Gains inf

6. Interpret
legend.

7. Draws inf
different

8. Draws inf

9. Develops
ticular p

10. Applies p
eralizati

- ii -

climate, sur-
resources,
pry -- affect
atterns.

- a. Geographers ask different questions about places, depending upon their purposes at the moment.

ATTITUDES

tivities on
and more in
ins except in
ere climate
leads people
in the high-

1. Is sceptical of the finality of knowledge; considers theories tentative, subject to change in the light of new evidence.
2. Is curious about social data.

SKILLS

as tend to have
density than
too much mois-
population
on distribution
s and his tech-
ysical features

1. Sets up hypotheses.
2. Interprets tables.
3. Interprets line graphs.
4. Reads rapidly for main ideas.
5. Gains information by studying films.
6. Interprets map symbols in terms of map legend.
7. Draws inferences from a comparison of different map patterns of the same area.
8. Draws inferences from maps and pictures.
9. Develops a system of regions to fit a particular purpose.
10. Applies previously-known concepts and generalizations to new data.

re interdepen-

one society

he place to
hem material

on about areas
ch enables
e, and general-

11. Tests hypothesis against data.
12. Generalizes from data.

-iii-

OBJECTIVES

OUTL

G. Phenomena are distributed unevenly over the earth's surface, resulting in great diversity or variability from one place to another.

1. L
t
o
t

A IS CURIOUS ABOUT SOCIAL DATA.

G A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries

-1-

OUTLINE OF CONTENT

distributed unevenly
surface, resulting
ity or variability
another.

1. Latin America is an area of great diversity, even though people have come to think of it as a region on the basis of the Latin influence in the area and the general physical delineation of the land.

SOCIAL DATA.

of one or more
s. The core area
us, but there are
where boundaries

TEACHING PROCEDURES

Initiatory Activities

1. You may wish to do one or more of the following:
 - a. Prepare a bulletin board display depicting the contrasting physical features, climatic types, and especially the different peoples of Latin America.
 - b. Play a recording or tape of authentic Latin American music.
 - c. Display a wide variety of books that students may use in their work.
 - d. Give a pretest to determine prior knowledge students may have about the climate, the people and the products of South America. Go over the pretest and point out any misconceptions that may be held widely. This test may help in planning specific activities in the unit.
 - e. A guest speaker who has been to Latin America or who is an expert on some phase of Latin American life would be valuable and interesting.
 - f. Have students watch the newspapers and magazines for articles of interest on Latin America. Suggest they keep a scrapbook of articles and pictures based on a specific theme -- such as, Indians of South America, Ranching on the Pampas, Life in the Amazon region, or others of interest.
2. Discuss: What have you learned about the meaning of region so far in this course? Is there any single basis for the drawing of regional boundaries? Explain. What approach

-2-

MATERIALS

or more of the following:

board display depicting the contours, climatic types, and especially the peoples of Latin America.

sample of authentic Latin American

Tape of Latin American music.
Or Folkways Records.

list of books that students may use

determine prior knowledge students have of the climate, the people and the products of Latin America. Go over the pretest and point out the ideas that may be held widely. This is followed by planning specific activities in the

has been to Latin America or who has been to Latin America life is interesting.

the newspapers and magazines for Latin America. Suggest they find articles and pictures based on a theme such as, Indians of South America; Life in the Amazon region, or

learned about the meaning of regional boundaries? Is there any single basis for regional boundaries? Explain. What approaches

are drawn between different regions.

- G. Regions are delimited on many different bases, depending upon the purpose of the study. Some are delimited on the basis of a single phenomenon, some on the basis of multiple phenomena, and some on the basis of functional relationships.

- A. IS CURIOUS ABOUT SOCIAL DATA.

- S. Reads rapidly for main ideas.

might we take in trying to identify regions in Latin America? Suggest that pupils should try to regionalize the area on the basis of several criteria during the next few days and try to decide which criterion or criteria they think best. Also tell the class that social scientists differ as to whether they are willing to call Latin America a region of the world. Ask: Why do you think it may have been called a region and studied separately in the past? (Let pupils make suggestions to discuss in more detail later.) Suggest that pupils try to decide during the course of the unit, whether or not they think Latin America should be set apart as a region.

3. Give an overview of the unit by discussing some of the major topics to be studied. Stress the many contrasting ways of life in the continent.

Have a variety of textbooks in the room to allow students to skim rapidly the topics to be presented in the unit. Stress rapid reading techniques for this assignment.

Based on the rapid reading exercise and the introductory discussion, have the students prepare a list of four or five possible topics they would prefer to work on individually or in groups as a major assignment.

4. If this has not been done in earlier units, take the class to the school library and make sure that students understand the card catalogue system and are aware of other reference material available on Latin America.

S. Takes effective notes on reading and discussions.

II. Latin Am
low popu
ulation
lated fr
ever, po
America

S. Interprets map symbols.

A. In ge
though

S. Interprets tables.

S. Interprets line graphs.

B. Popul
rapid

S. Sets up hypotheses.

S. Sets up hypotheses.

C. Latin
settle
social

G. Unevenly-distributed phenomena form distinctive patterns on the map.

1. Clu
for

on reading II. Latin American countries are marked in general by low population densities and a clustering of population densities at certain places which are isolated from each other by areas of low density. However, population is growing more rapidly in Latin America than in any other region of the world.

A. In general, population densities are low, although this is not true in all countries.

B. Population in Latin America is growing more rapidly than in any other part of the world.

C. Latin America's population pattern of clustered settlement presents a unique set of economic, social, and political problems.

1. Clustering is the preferential way of living for nearly all societies on earth.

enomena
ns on the

Developmental Activities

5. Ask pupils to read an introductory section on Latin America and to take notes on pertinent details. Follow this by presenting a good example of note-taking technique on the chalkboard for this same section. Stress the importance of note-taking during both reading and discussion periods.

6. Project a world map of population density. Ask: How does Latin America's population density compare with that in other areas of the world? Give pupils a table making a similar comparison for further checking.

Give pupils a table comparing different Latin American countries as to population densities. Ask: Does the general rule of low population density hold true in all countries? Which countries are most populated? least populated?

7. Prepare a line graph or have a pupil prepare such a graph to compare population growth since 1900 in Latin America, the United States, and some other parts of the world. Ask: Which of the places shown here is growing most rapidly? Why might this cause problems?

8. Have pupils note a map showing the population distribution within Latin America. Ask: How evenly are the people scattered over the land? What might account for the way in which the people are scattered? Compare this map with a map showing the population distribution in the U.S. What differences do pupils not between the two? Be sure that pupils understand the meaning of the terms "clustering" and "peripheral." Review the values of

Wo
(c
To
wo
of
(c
TH
Wo

Po
Am
Wo
po
an
mo

Introductory section on Latin American pertinent details. Follow this example of note-taking technique on some section. Stress the importance of both reading and discussion

Population density. Ask: How do population densities compare with the rest of the world? Give pupils a table for further checking.

Compare different Latin American population densities. Ask: Does the population density hold true in all areas? Which are most populated? least

Have a pupil prepare such a chart showing population growth since 1900 in Latin America, and some other parts of the world. Which places shown here is growing most rapidly? What are the causes of this? What are the problems?

Showing the population distribution in Latin America. Ask: How evenly are the people distributed? What might account for the unevenness? Compare this population distribution in the Americas with that of the world. Do the pupils not between the two? Do you understand the meaning of the terms "population density" and "population per square mile." Review the values of

World map of population density (e.g. Kohn and Drummond, World Today, pp. 14-15). Table of world population densities and of Latin American densities (e.g. Wheeler and Kostbade and Thoman, Req. Geog. of the World, pp. 488-489).

Population density map of Latin America (e.g. Deasy, et.al., World's Nations, p. 199. For population map (using dots) of America and Latin America, see Kohn and Drummond, World Today, p. 14.

-7-

le to discern
onships among
ta.

-- climate,
atural re-
ity, and his-
lement and

om maps.

ainst data.

om a comparison
atterns of the

- a. Early in the history of North America and Europe, similar clustering patterns were evident.
- b. South America today exhibits population clusters which tend to remain generally distinct from one another.

2. Within the population clusters there is always found an urban node or center.
 - a. There is little overlap between the territory served by adjacent centers.
 - b. Economic, social, and political life of a region commonly focuses on only one large central city.
 - c. Lines of transportation and communication reflect this centralized focus.

3. Generally, political boundaries pass through areas of sparse population.
4. A significant aspect of clustering is the necessity to recognize two kinds of political areas.

maps for making such patterns clear.

Explain that similar clustering took place in early periods of U.S. history. Perhaps demonstrate with maps. Show a series of population maps of U.S. and ask pupils what has happened to these clusters in many parts of the country? Ask: Why do you think people tend to cluster together in this way? Why do you think the boundaries between clusters became less distinct in many parts of the U.S.?

9. Have pupils identify urban nodes of each general clustering area in Latin America by examining larger scale maps or by using an overlay map showing the locations of major cities. Ask: What do you notice about the number of urban nodes or centers for most of these clusters?

Ask: To what degree do you think that these centers will serve the people of other population clusters or centers in Latin America? Review the way in which some U.S. cities which they have studied have served many population centers as well as their own hinterlands.

Ask: How might we use maps to test our hypotheses? Project transportation maps to check quickly on guesses made. However, suggest that pupils keep their hypotheses in mind as they study the rest of the unit. They should look for further data to test them as they study.

10. Have a pupil trace national boundaries on a piece of acetate which has been placed over a population density map. Ask: What do you notice about how the boundaries run? Do most of them run through areas of clustering of population or through peripheral areas of light population? Why do you think this may be important?

ns clear.

ering took place in early per-
haps demonstrate with maps.
n maps of U.S. and ask pupils
clusters in many parts of
you think people tend to
ay? Why do you think the
s became less distinct in

Hist. atlas maps on population
densities in U.S. over time.
See Lord and Lord, Hist. Atlas
of the U.S.

nodes of each general cluster:
by examining larger scale maps
showing the locations of major
notice about the number of ur-
ost of these clusters?

e.g. Saveland and Glendinning,
World Resources, Western Hemi-
sphere, pp. 159, 165. Deasy,
et.al., World's Nations, p. 200.

u think that these centers will
population clusters or centers
the way in which some U.S. cit-
d have served many population
vn hinterlands.

For portional maps see, James,
Lat. Am., pp. 53-54. Saveland
and Glendinning, World Re-
sources, Western Hemisphere,
p. 207. Lindop, Understanding
Lat. Am., p. 241. For a high-
way map, see Lindop, p. 240.

s to test our hypotheses? Pro-
o check quickly on guesses made.
s keep their hypotheses in
t of the unit. They should
est them as they study.

boundaries on a piece of
ced over a population density
tice about how the boundaries
through areas of clustering of
pherical areas of light popula-
s may be important?

For Population map, see above.

S. Generalizes from data.

5. A
c
a

S. Draws inferences from a comparison of different map patterns of the same area.

b

S. Sets up hypotheses.

III. Diversi
types o
complex

G. The topography of an area may present limitations given a specific level of technology.

A. Lati
full
hav
tion

S. Draws inferences from a comparison of different maps or patterns of the same area.

1. T

-9-

- a. The "total national territory" over which a politically organized group claims jurisdiction -- the area within the national boundaries.
- b. The "effective national territory" -- that part which actually contributes to the economic support of the country.

om data.

5. Another result of clustering is the problem of transportation which South America faces.
 - a. Efficient transportation networks have not been built because of the lack of an economical trade basis.
 - b. The chief lines of connection between settlement clusters are still the ocean routes.

es from a compari-
nt map patterns of

eses.

of an area may pre-
ns given a specific
bology.

es from a comparison
aps or patterns of

- III. Diversity in physical features and in climatic types characterize Latin American and add to its complexity.
 - A. Latin America's physical diversity presents the full range of possibilities; physical features have had some effects upon population distribution.
 1. The Andes of western South America extend nearly the entire length of the continent.

Discuss: What types of problems would this type of settlement pattern present to the people of South America? Let pupils set up hypotheses.

11. Have pupils prepare a map of Latin America showing major land transportation routes. Have them write a short comparison of this pattern with that of the United States. Or have one student prepare a map and write a comparison. Then ask each pupil to write the comparison.
12. Have students compare transportation patterns showing density of population. What possible similarities do they see between these two distributions? (pupils keep all maps that they prepare in a folder. At the end of the unit they will have assembled a "atlas" of South America.)
13. Show students a physical-political map of Latin America and ask them to discuss the major features they see. What difficulties might arise in transportation because of these physical features?

Have pupils compare the physical features of South America with those of North America. What do they

of problems would this type of
present to the people of South Amer-
up hypotheses.

map of Latin America showing the
tion routes. Have them write a
his pattern with that of the United
student prepare a map and project
oil to write the comparison.

e.g. See James, Lat. Am., p.
53 (railroad map), p. 54 (road
map). Lindop, Understanding
Latin Am., p. 241 (railroad),
p. 242 (road).

transportation patterns with a map
population. What possible relation-
between these two distributions? (Have
that they prepare in a folder. At
they will have assembled a useful
ica.)

See maps above.

cal-political map of Latin America
ss the major features they see. Ask:
ht arise in transportation, given
es?

Physical-political map of
Latin America (e.g. See James,
Lat. Am., pp. 25, 26 for phy-
sical map). Borchert and Mc-
Guigan, Geog. of the New World,
pp. 378-379, 402-403. Lindop,
Understanding Lat. Am., pp. 210,
130, 109, 15.

he physical features of South Amer-
th America. What do they notice?

- S. Tests hypotheses against data.
- G. The topography of an area may present limitations given a specific level of technology.

- S. Sets up hypotheses.
- S. Tests hypotheses against data.
- G. Men carry on more activities on plains than in hills and more in hills than in mountains except in the low latitudes where climate at lower elevations leads people to seek cooler areas in the highlands.

-11-

- a. This system has proved to be a hindrance to transportation between the population clusters on either side.

s against data.

of an area may pre-
s given a specific
logy.

es.

against data.

e activities on
ills and more in
untains except in
s where climate
ons leads people
reas in the high-

- b. Yet, the highlands of this system have been the homelands of numerous Indian cultures for centuries.
2. The Amazon, the third longest river of the world, is navigable for 2300 miles from its mouth.
 - a. However, the region known as the Amazon basin has one of the lowest population densities in all of South America.

14. Use a physical-political map and a transportation map to illustrate transportation difficulties in South America. Point out the locations of Lima and Iquitos, both in Peru. Give pupils a problem: A manufacturer of machinery in Lima wants to ship a large order of his product to a customer in Iquitos. Since the products are too bulky for air shipment, what surface route would be the most appropriate? Solution: Due to the lack of transportation facilities over the Andes, the only route remaining is by ocean through the Panama Canal and 2300 miles up the Amazon River.
15. Read aloud quotations from books which describe the difficulties of either: (1) building roads or railroads over the Andes, or (2) traveling on such roads, or (3) the cost of transportation on such roads.
16. Project photos of the Andes. Then project photos of the Amazon River basin and tell pupils about how far up the river ships can go. Ask: What differences do you note in these two areas? (Have pupils think of as many as they can.) Which would you think would support the greater population? Why?

Now have pupils look at population density maps and identify the Andes highlands and the Amazon basin. Let them set up hypotheses, if they have not done so already, about why population densities are higher in the highlands of the Andes than in the Amazon basin.

- 1 -

and a transportation map to difficulties in South America. Lima and Iquitos, both in Peru. manufacturer of machinery in order of his product to a customer. products are too bulky for route would be the most appropriate. the lack of transportation facilities the only route remaining is by air and 2300 miles up the Amazon.

Physical-political map of South America.

books which describe the difficulties of building roads or railroads over the mountains, or (3) the cost of such roads.

Then project photos of the Andes and of Amazon River basin. What differences do you note between the two? Pupils think of as many as possible that would support the project.

Photos of Andes and of Amazon River basin. See maps listed above.

Population density maps and maps of the Amazon basin. Let pupils know that they have not done so already, if they are higher in the highlands of the Amazon basin.

- S. Draws inferences from maps and pictures.
- S. Sets up hypotheses.
- S. Tests hypotheses against data.

- S. Sets up hypotheses.
- S. Tests hypotheses against data.
- G. Relatively moist areas tend to have a higher population density than dry areas, although too much moisture may lead to low population densities. Population distribution reflects man's values and his technology as well as physical features of an area.

- S. Sets up hypotheses.
- S. Tests hypotheses against data.

-13-

b. This area is relatively uninhabited because there has been no economic or social impetus to populate it permanently.

3. The coast of Chile affords a good example of physical diversity.

a. The northern one-third is one of the driest deserts anywhere.

b. The middle one-third is a transition to a mediterranean climate.

c. The southern one-third presents a marine environment of evergreen forest and heavy rainfall.

4. Argentina presents another set of contrasting physical regions.

a. Northern Argentina contains a region of hot, humid forests.

b. South of the Rio Colorado is the region of Patagonia which is a cool, dry, and windswept region.

c. In the east-central part of Argentina there is an economically productive region known as the humid pampa.

5. Mexico and the Central American countries have diverse physical features.

17. Project a physical map of Chile and show pupils photos of each region. Ask: What can you tell about the climate of each region from these photos? About the physical relief? How do the three regions differ? Where would you expect to find the highest population densities? Why? Now have pupils check their hypotheses against an actual map of population density.
18. Now have pupils examine a physical map of Argentina and look for differences in physical relief and elevation. What would they expect to find true about the temperature and precipitation in each region? Why? Have pupils check during the next unit on Buenos Aires. Where would pupils expect to find the highest population densities in Argentina? Why? Have pupils check against a population map.
19. Project a physical map of Mexico and Central America and have pupils note the diverse physical features. Ask: Where would you expect to find the highest population densities? Why? Have pupils check their hypotheses against a population map.

-14-

and show pupils photos
you tell about the cli-
photos? About the physi-
regions differ? Where
highest population densi-
check their hypotheses a-
on density.

Physical map of Chile in James,
Lat. Am., p. 241. Photos of
each region. See unit on Chile
Population density map of Chile
in James, p. 67.

al map of Argentina and
relief and elevation.
true about the tempera-
region? Why? Have pu-
on Buenos Aires. Where
highest population den-
pupils check against a

Physical and population density
maps of Argentina in James,
Latin America, pp. 237, 67.

and Central America and
sical features. Ask:
he highest population
ck their hypotheses

Physical map and population den-
sity maps of Mexico and C. A-
merica in James, Lat. Am.,
pp. 26, 638.

S. Sets up hypotheses.

S. Figures out ways of testing hypotheses.

S. Sets up hypotheses.

B. The cl
anothe

S. Tests hypotheses against data.

G. Temperature is affected in part by elevation; air is cooler at higher elevations than at lower elevations if latitude and distance from the sea are the same.

G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, prevailing winds, physical features which block winds from certain directions, ocean currents, etc.

S. Sets up hypotheses.

S. Tests hypotheses against data.

G. Rainfall is affected by distance from bodies of water, wind direction; temperature, physical features which block winds carrying moisture, and ocean currents.

ing hy-

B. The climatic regions in Latin America present another great range of diversity.

data.

in part by
at higher
elevations
from the

by the dis-
elevation,
bodies,
al features
ertain di-
, etc.

data.

distance
nd direc-
cal fea-
carrying
ents.

20. Now ask pupils to summarize any relationships they have found between physical features and population densities. Can they develop one generalization, or are there differing conclusions for different areas? If so, what might account for these differences? Suggest pupils check as they go along, but they should decide now what kinds of evidence they might collect to check on their guesses.
21. Project an overlay of wind directions on top of a map showing the physical features of Latin America. Ask: What would you expect to find about temperatures in the different parts of Latin America? Have pupils make guesses and record them in chart form. Let them do this in a very general way first, and then ask what they think might be true about variations in temperature in these places from onetime of year to another. Again record their guesses. Now have pupils check their guesses against temperature maps and charts.
22. Use a similar device to have pupils set up hypotheses about precipitation in the different parts of Latin America, including possible variations from one time of the year to another. Now have pupils check their guesses against rainfall maps and charts.

For
se
Fo
ma
pp

size any relationships they have between features and population densities. Generalization, or are there different areas? If so, what might the differences be? Suggest pupils check as they should decide now what kinds of subjects to check on their guesses.

Wind directions on top of a map of Latin America. Ask: How do you find about temperatures in the different parts of Latin America? Have pupils make a chart in chart form. Let them do this first, and then ask what they notice about variations in temperature in different parts of the year from one time of year to another. Again review and have pupils check their guesses on the maps and charts.

For map of wind directions, see James, Lat. Am., p. 43. For Jan. and July temperature maps of S. Am., see James, pp. 30-31.

Now have pupils set up hypotheses about the different parts of Latin America. Have pupils make a chart of possible variations from one time of year to another. Now have pupils check their guesses on the maps and charts.

G. A region is an area which has some degree of internal unity or homogeneity and which differs in significant respects from adjoining areas.

S. Develops a system of regions to fit a particular purpose.

S. Draws inferences from a comparison of different map patterns of the same area.

A. SCEPTICISM OF SINGLE-FACTOR CAUSATION IN THE SOCIAL SCIENCES.

G. Men carry on more activities on plains than in hills and more in hills than in mountains except in the low latitudes where climate at lower elevations leads people to seek cooler areas in the highlands.

G. Relatively moist areas tend to have a higher population density than dry areas, although too much moisture may lead to low population densities. Population distribution reflects man's values and his technology as well as physical features of an area.

-17-

has some
or homo-
in sig-
joining

ons to

omparison
of the same

1. The middle and high latitude climates of South America may be compared with those of North America.

OR CAUSA-
ES.

ies on
more in
except
e climate
people
he high-

d to have
ty than
uch mois-
lation
tribu-
s and his
sical

23. Have pupils superimpose a rainfall map upon a temperature map. Ask: Using these two criteria combined, what differences do you note in climate? Let pupils list different types of climate. Now have them try to regionalize Latin America according to these criteria. Let them check their maps against climatic maps made by professionals.

Display a series of pictures characteristic of each of these climatic types.

24. Have pupils compare climatic maps with population density maps. Ask: What do you notice? Do these climatic maps help explain some of the things which puzzled you when you tried to relate population patterns to relief and elevation? Why or why not? (It is important that pupils understand that no single physical, climatic, or economic pattern influences where people live. However, the geographer may use combinations of selected distributions in compiling regions. Have a discussion on these important ideas.)

-18-

a rainfall map upon a temperature map. If the two criteria combined, what difference in climate? Let pupils list differences. Now have them try to regionalize according to these criteria. Let them compare climatic maps made by profession-

For rainfall maps, see James, Lat. Am., pp. 40-42. Deasy, et.al., p. 197. For a climatic maps, see James, pp. 35-37.

atures characteristic of each of

Photos illustrating different climatic types in Latin America.

climatic maps with population density. Do you notice? Do these climatic differences of the things which puzzled you explain the population patterns to relief? Why not? (It is important that no single physical, climatic, or economic forces where people live. However, combinations of selected distributions. Have a discussion on these

See above for climatic maps and population density maps of L. America.

- S. Generalizes from data.
- G. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.
- S. Generalizes from data.
- S. Generalizes from data.
- S. Applies previously-known concepts and generalizations to new data.

- 2. Bec high temp are Fuec equa degr of l
- 3. Ther most tree
- a. T
- c
- b. O
- i
- 4. The Amer Amer
- a.
- b.
- c. Se Na

-19-

2. Because South America has little land in the higher latitudes, the great extremes of temperature range are not found here as they are in North America. However, Tierra del Fuego, more than fifty degrees south of the equator, has an annual temperature above 32 degrees in the coldest month and an average of below 50 degrees in the warmest month.
3. There is a general misunderstanding among most people concerning the temperature extremes in terms of heat in South America.
 - a. There are no parts of South America where more than fifteen days in the hottest month exceed 110 degrees.
 - b. Only northern Argentina in South America has temperatures exceeding 110 degrees.
4. The sequence of west coast climates in South America is similar to those found in North America.
 - a. Cool, rainy climates of Southern Chile correspond to those in southern Alaska and British Columbia.
 - b. Middle Chile, like coastal California, has a mediterranean type climate.
 - c. Southern California and Mexico, like Northern Chile, contain deserts.

al differ-
part by
tor; temp-
ller near
er away from

own concepts
new data.

25. Have students make a comparison between the climatic types and yearly temperature ranges of South America and North America. Be sure that they understand the reversal of seasons in the southern hemisphere.

26. Have pupils examine charts and maps of temperature in summer months. Can they find any places where temperatures exceed 110 degrees? How large an area is this? How long do such temperatures last? Show pupils James' map on the frequency of hot days.

27. With a transparency projector, show the country of Chile (north at the top) superimposed on a map of the North American west coast (south at the top). A comparison can then be made of the similarity of west coast climates between these two areas. Ask: How can you explain this similarity?

-20-

comparison between the climatic temperature ranges of South America and North America. Be sure that they understand the difference between the northern and southern hemispheres.

Climatic charts of S. America and N. America.

Use climatic charts and maps of temperature in the northern and southern hemispheres. Do they find any places where temperatures are the same? How large an area is this? Do temperatures last? Show pupils James' record of hot days.

See temperature maps above. James, Lat. Am., p. 32.

Using a projector, show the country of Chile superimposed on a map of the North American coast (south at the top). A comparison of the similarity of west coast climates can be made. Ask: How can you explain this?

Overlay maps of Chile and N. Am. Coast.

- S. Applies previously-learned concepts and generalizations to new data.
- G. Places in the interior of continents tend to have greater extremes of temperature than places along the coast.

- S. Generalizes from data.
- G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, prevailing winds, physical features which block winds from certain directions, ocean currents, etc.

- S. Draws inferences from a comparison of different map patterns of the same area.
- G. Rainfall is affected by distance from bodies of water, wind direction, temperature, physical features which block winds carrying moisture, and ocean currents.

- S. Sets up hypotheses.

5. The interior extreme coast a

6. A great humid t

a. Although the peop

b. The ity, abse

c. No ex the to no west

7. North a savanna

a. These but alit

b. For the South

-21-

- concepts
data.
- ontin-
xtremes
along
- the dis-
vation,
dies,
features
ain di-
cc.
- parison
the
- ance
rec-
fea-
ying
.
5. The interiors of both continents have greater extremes in temperature than do the west coast areas.
 6. A great part of the Amazon Basin contains a humid tropical climatic type.
 - a. Although this region is near the equator, the great extremes of temperature most people imagine do not occur.
 - b. The false impression is due to high humidity, high average temperatures, and the absence of a distinct cool season.
 - c. No extremes of temperature are found in the equatorial Amazon that could compare to normal summer heat waves in the mid-western United States.
 7. North and south of the tropics are areas of savanna, or wet and dry low-latitude climates.
 - a. These areas remain warm most of the year, but there is a marked wet and dry seasonality.
 - b. For the most part, these areas contain the lowest population densities in South America.

28. Introduce, or review, the concept of continental climatic influence by having students compare temperature extremes between, for example, 50 degrees north latitude in North America and 50 degrees south latitude in South America. This will lead to the concept of marine influence on land bodies.
29. Have a pupil look up temperature and humidity statistics recorded in the Amazon Basin. He should report to the class. Have the class compare these statistics with similar readings for a station in the midwestern U.S. Look once again at the map in James on the frequency of hot days. Have a discussion based on why people have a mistaken concept about temperature in equatorial regions. (Or postpone this activity until pupils study Manaus.)
30. Have pupils locate savanna areas. Be sure they understand the characteristics of such areas. Discuss reasons for variations in rainfall. Compare the map of savannas with a population density map. Ask: What do you notice about densities in such regions? What might explain this relationship?

-44-

concept of continental climates
students compare temperature ex-
tremes at 50 degrees north latitude in
the north and south latitude in South Amer-
ica. (Use concept of marine influence

temperature and humidity statistics
of the tropics. He should report to the
class how these statistics with simi-
larities in the midwestern U.S. Look
for differences in the frequency of hot
days and on why people have a mis-
conception of climate in equatorial regions.
(Until pupils study Manaus.)

"Student Almanac."
James, Lat. Am., p. 32.

of such areas. Be sure they under-
stand the reasons. Discuss reasons
for the distribution of savannas
on the map. Ask: What do you notice
about the distribution? What might explain this

See vegetation maps in James,
Lat. Am., pp. 44-45.

- S. Interprets map symbols in terms of map legend.
- G. When people migrate from one place to another, they carry with them material objects and culture.

IV. Diversity in social a
in part from the pene
groups of varied back

- A. IS SCEPTICAL OF THE FINALITY OF KNOWLEDGE; CONSIDERS THEORIES TENTATIVE, SUBJECT TO CHANGE IN THE LIGHT OF NEW EVIDENCE.
- G. Ways of living differ from one society to another.
- G. Man uses his physical environment in terms of his cultural values, perceptions, and levels of technology.

- A. South America was c
ples from Asia, wh
- 1. These groups are
"land bridge;"
over many centur
age."
- 2. Although similar
ferent Indian g
distinct culture
- 3. Some of the mos
America were the
bia; the Inca of
Equador, Bolivia
Aztecs and Mayas
- a. The cultural
scen in the c
could gain a

s
place
em
IV. Diversity in social and cultural systems results in part from the penetration and colonization by groups of varied backgrounds.

A. South America was originally populated by peoples from Asia, who became known as Indians.

1. These groups arrived via the Bering Strait "land bridge;" their migration occurred over many centuries following the last "ice age."

2. Although similar in some respects, the different Indian groups developed separate and distinct cultures.

ent
,
inol-
3. Some of the most advanced cultures of Latin America were the Chibcha of highland Columbia; the Inca of the highlands of Peru, Ecuador, Bolivia, and northern Chile; the Aztecs and Mayas of Mexico.

a. The cultural level of these groups was seen in the great numbers of people who could gain a living from the land.

31. Project maps showing population diversity within Latin America today. Ask: What population groups can you identify from these maps? Where did all of these different kinds of people who live in South America come from originally? Why would the migration of so many people to S. America be important?

Use a world map or globe and ask pupils their ideas about possible routes of migration, given the premise that the people of the Americas came from another continent.

32. Have students read an introductory article on where the first people of America came from, to check their conclusions. Have a discussion pointing out the various theories held on this question. Then use a map to show what social scientists believe.

33. At this point, do not have pupils spend much time investigating the different Indian cultures which were established in Latin America prior to the coming of the white man. Pupils will investigate some of them in more detail when they study individual case studies of sequent occupation. (They will also study the Aztecs in more detail in grade six.) However, at this point prepare a bulletin board display or a large chart to show differences between the most advanced cultures and some of the others. One side of the display might show a map identifying the location of the Aztecs, Mayas, Incas, and Chibcha. Beneath it, include pictures and drawings illustrating the sedentary agriculture, the architecture, etc. of each group. On the other half of the display, show a map locating some of the other groups to be shown. Use photos to illustrate the nomadic hunters and fishers, shifting

population diversity within Latin America. What population groups can you identify on maps? Where did all of these different people who live in South America come from? How would the migration of so many people be important?

Map of population diversity in Latin America (e.g. James, Lat. Am., p. 3).

Obtain and ask pupils their ideas about the origin of migration, given the premise that the Americas came from another continent.

Use an introductory article on where the Americas came from, to check their conclusions, pointing out the various questions raised in the question. Then use a map to show where they believe.

Have pupils spend much time investigating Indian cultures which were established prior to the coming of the white man. Investigate some of them in more detail through individual case studies of sequent occurrences. Also study the Aztecs in more detail. Then, at this point prepare a bulletin board or a large chart to show differences between the advanced cultures and some of the others. Pupils might show a map identifying the location of the Incas, Mayas, Incas, and Chibcha. Pictures and drawings illustrating the architecture, etc. of each culture. On the other half of the display, show a map locating the different groups to be shown. Use photos of nomadic hunters and fishers, shifting

Maps of location of different types of economy among Indian groups in Latin America.

-25-

b. Their sedentary life could support a larger population than could nomadic hunters and gatherers because of their cultivated food products.

c. These cultures developed a surplus food crop.

4. Besides these developments, a large number of new cultures spread over the Americas.

a. Various tribes of hunters, fishermen, and gatherers.

b. The Araucanians of the Amazon basin, who were hunters, fishermen, and gatherers.

c. The Tupi and Arawakan farmers and hunters.

d. The Abipone and Guaraní hunters and gatherers.

S. Reads rapidly for main ideas.

B. During the Age of Discovery, new social patterns were added to the existing ones.

-25-

b. Their sedentary agricultural economy could support a higher population density than could those who remained hunters and gatherers because of their higher per capita food production.

c. These cultures used maize as a basic food crop.

4. Besides these advanced cultures there existed a large number of separate Indian groups spread over the remainder of Latin America.

a. Various tribes ranged from semi-nomadic hunters, fishers, and primitive farmers.

b. The Araucanians of Chile and the Jivaro of the Amazon Basin combined hunting, fishing, and incidental agriculture.

c. The Tupi and Guarani, were shifting cultivators.

d. The Abipones and the Puelche of the Argentine plains derived food mainly from hunting the "guanaco," a kind of llama.

for main ideas.

B. During the Age of Exploration, European elements were added to the already diverse Indian social patterns.

cultivators, and those who combined some of each. Then at the bottom of the display show a map of each side showing population densities (in a crude way) for groups in each region. Or use a legend to explain that the Indians on the left hand side developed much higher population densities. Discuss the display. What differences were there between the more advanced cultures and the others? What differences were there between the less advanced groups? Why could the more advanced cultures have more people living in a region of the same size?

31. Give pupils figures on the proportion of the population of Latin America which is of Spanish and Portuguese descent. Discuss the meaning of the term Latin America. Then have pupils read brief descriptions about the Spanish and Portuguese explorers and their reasons for coming. They should read rapidly, just for the main ideas.

Textbooks.

-27-

S. Draws inferences from a comparison of different map patterns of the same area.

1. Spanish penetration of the Americas from focal points by the shores of the Atlantic and the Pacific areas of the highland plateau.
 - a. The Spanish penetration from such centers as Mexico City, and Guatemala.
 - b. The Spanish penetration from the Pacific coast and Ascuncion.
 - c. The Spanish penetration from a series of points along the Mexico coast.
 - d. Having reached the interior, penetrated in all directions.
2. The Portuguese penetration of Brazil from sites on the Atlantic coast.
3. Both Spanish and Portuguese penetration first where the Indian population was dense.
 - a. The Indians had accumulated stores of wealth (gold, silver) from Spanish and Portuguese trade.
 - b. The Indians preferred to trade with the Spaniards and Portuguese who could be converted to Christianity.
 - c. The Indians preferred to trade with the Spaniards and Portuguese who were securing more land for agriculture and used as agricultural labor.
 - d. The Spaniards and Portuguese did not did the Spaniards.

comparison
of the

1. Spanish penetration originated from several focal points but tended to spread out from the shores of the Gulf of Mexico and into areas of the highest density of Indian population.
 - a. The Spanish moved into Central America from such centers as Guadalajara, Mexico City, and Guatamala City.
 - b. The Spanish moved north and south along the Pacific coast and inland to Potosi and Ascuncion from Lima, Peru.
 - c. The Spanish made short probes southward from a series of towns along the Gulf of Mexico coast of South America.
 - d. Having reached Ascuncion, the Spanish penetrated in almost all directions.
2. The Portuguese penetrated inland from such sites on the Atlantic coast.
3. Both Spanish and Portuguese moved into areas first where there were large centers of Indian population.
 - a. The Indians had accumulated great stores of wealth (gold and silver) which the Spanish and Portuguese wanted.
 - b. The Indians presented a populace which could be converted to Christianity.
 - c. The Indians could be used as laborers in securing more precious metals and could be used as agricultural workers. However, the Portuguese did not gain as many workers as did the Spanish.

32. Show pupils maps of Indian settlement in Latin America and maps of Spanish and Portuguese penetration. Ask: Did the Europeans try to avoid going into areas with large Indian populations or did they try to go to such areas? Why do you think they tried to go to such areas? What were they looking for? What have you learned already about the Indian cultures which might lead the Europeans to think they could find gold and silver in centers of Indian settlement? Why else might they want to go to such areas? (If necessary, tell pupils that some of the early people going into these areas were Catholic priests. Why might they wish to go there? Explain briefly the relationship at this time between the Church and the governments of Spain and Portugal.) If pupils do not think of the possibility of the need for agricultural workers, say: Suppose you wished to farm in Latin America and to make a big fortune doing so. Why might you want to go where there were many Indians? etc. Which country was able to gain the largest number of Indian workers? Why? Have two pupils assume the roles of anthropologists or historians. They should discuss the question: Why was it so easy for the Spanish and Portuguese to conquer the Indians and make them do as they wished?

Tell pupils that they should try to find out as they study individual case studies later just how much the Spanish and Portuguese affected the ways of living of the Indians whom they conquered.

Maps
L. A.
Am.
Span
Lat
Jame

Indian settlement in Latin America and Portuguese penetration. Ask: Why did they avoid going into areas with Indians or did they try to go to such areas? Why did they try to go to such areas? What for? What have you learned about the cultures which might lead the Spaniards to find gold and silver in Latin America? Why else might they want to go into these areas? (If necessary, tell pupils that the relationship at this time between the Spaniards and Portugal.) If you see the possibility of the need for a role-play: Suppose you wished to farm and to make a big fortune doing so. Why would there be many Indians? etc. Have two pupils assume the roles of Spaniards. They should discuss the reasons why it was so easy for the Spanish and Portuguese to take the Indians and make them do as they

Maps of Indian settlement in Latin America (see James, Lat. Am., pp. 15, 16). Maps of Spanish and Portuguese penetration of Latin America (see James, pp. 18, 20).

Students should try to find out as they study the ways of living of the Indians

S. Sets up hypotheses.

4. By the
and Po
east o
Portug
ish.

S. Draws inferences from a comparison
of different map patterns of the
same area.

5. All of
import

S. Reads rapidly for main ideas.

C. Negroes w
of the re

S. Draws inferences from a comparison
of different map patterns of the
same area.

D. During the
grants hav
as Italy,
from Spain
to areas n
Uruguay, A
Brazil.

1. The lan
remote
times a
degree

2. The nev
populat
earlier
metals

-29-

4. By the Treaty of Tordesillas between Spain and Portugal (1494) all lands discovered east of 50 degrees west longitude would be Portuguese, and all land west would be Spanish.

5. All of the original settlement points are important urban centers today.

C. Negroes were added to the populations of several of the regions in order to provide more workers.

D. During the last one hundred years, many immigrants have arrived from other countries such as Italy, Germany, Poland, and Japan as well as from Spain and Portugal. Most of them have gone to areas not previously developed much, such as Uruguay, Argentina, and the Sao Paulo area of Brazil.

1. The land bordering the Plata had been only a remote part of the Spanish empire in earlier times and had not been settled to any large degree.

2. The newer immigrants tended to go to thinly populated regions which had not attracted earlier settlers because they lacked precious metals or could not grow sugar cane.

33. Explain the Treaty of Tordesillas and then discuss: Why do you think the Portuguese penetrated beyond 50 degrees longitude in the Amazon basin? Point out that Portuguese is the official language of Brazil; while Spanish is the official language in the other countries.
34. Have pupils examine a map of Latin America today as compared with one of the early settlement sites from which the Spanish and Portuguese penetrated into Latin America. Ask: What has happened to these early settlements? Why do you think this has happened?
35. Tell pupils that Negroes and people of Negro descent are also found in Latin America. Use map to show some of places where they are found. Have several pupils read rapidly to find out how they got there. They should report their findings to the class.
36. Tell pupils that during the last 100 years many immigrants have arrived in Latin America. Use a population map to point out where most of these people have settled. Have pupils compare this map with the earlier map of Spanish and Portuguese settlements. Ask: Did these late arrivals settle in areas of heavy or light Spanish and Portuguese settlement? Why?

-30-

Tordesillas and then discuss: Why
these penetrated beyond 50 degrees
W. Point out that Portuguese
Brazil, while Spanish is the
the other countries.

Map of Latin America today as com-
paring settlement sites from which
penetrated into Latin America.
to these early settlements? Why
happened?

Maps of early Spanish and Por-
tuguese penetration (see James,
Latin America, pp. 18, 20).

and people of Negro descent are
the map to show some of
found. Have several pupils read
they got there. They should re-
the class.

Map of Latin America.
Textbooks.

the last 100 years many immigrants
America. Use a population map to
these people have settled. Have
with the earlier map of Spanish
nts. Ask: Did these late arriv-
heavy or light Spanish and Portu-

See above for map of population
in Latin America.

-31-

- G. A region is an area of one or more homogeneous features. The core area is highly homogeneous but there are transitional zones where boundaries are drawn between different regions.
- G. Regions are delimited on many different bases, depending upon the purpose of the study. Some are delimited on the basis of a single phenomenon, some on the basis of multiple phenomena, and some on the basis of functional relationships.

- F. Thus, the culture of South America is regionalized. (See map)
- i. Areas of population mostly rec
- 2. Predominant
- 3. Predominant Andean.
- 4. Mixed population Negroes.
- 5. Mixed population dominating

NOW TEACH THE CASE

-21-

one or more
The core
ous but
ones where
etween dif-

F. Thus, the cultural differences in the peoples of South America are many. However, several general regions of homogeneity may be identified. (See map.)

on many dif-
upon the
Some are de-
a single
basis of
some on the
relationships.

1. Areas of predominantly European settlement -- mostly recent origin.
2. Predominantly Andean Indian center,
3. Predominantly Indian centers other than Andean.
4. Mixed population -- large percentage of Negroes.
5. Mixed population -- large mestizo type predominating.

NOW TEACH THE CASE STUDIES ON LATIN AMERICA.

37. Once more project a map showing the present-day population mixtures. Have pupils notice how Latin America could be regionalized on the basis of population type. Have them identify areas which are made up predominately of descendents of Europeans. What large cities would fall within such regions?

James, Lat. Am., p. 8.

Now have pupils identify areas which are made up predominantly of descendents of Europeans.

Tell the class that they will study Buenos Aires in more detail. Now have pupils identify areas which are predominantly Andean Indians. If pupils have come through the Center's first grade course, point out that they have already studied such a culture when they studied the Quechua of Peru. If pupils have not come through this course, tell them that they will study the Cuzco area in more detail. (Point it out on the map.) Now have pupils identify areas which are predominantly non-Andean Indians. Point out Manaus on the map, and tell the class that they will study Manaus and the surrounding region in more detail. Now have pupils identify regions of mixed populations with a large percentage of Negroes. Have them locate important cities in such regions. Tell them that they will study Sao Paulo in more detail. Finally, have pupils identify areas of mixed populations with the mestizo type predominating. Point out that they will study Chile as a whole, since it is predominantly mestizo, even though part of the area is settled more heavily by people of unmixed European descent.

Ask: How does such a regionalization of South America differ from the ways in which we have regionalized the United States and Canada? Why might geographers sometimes use this type of regionalization rather than one based upon physical features? How could one regionalize Latin America other than by population structure or physical features?

NOW TEACH THE CASE STUDIES ON LATIN AMERICA.
THEN TURN TO THE CULMINATING PROCEDURES WHICH FOLLOW.

CULMINATING SECTION

G. Regions are delimited on many different bases, depending upon the purpose of the study. Some are delimited on the basis of a single phenomenon, some on the basis of multiple phenomena, and some on the basis of functional relationships.

These regional
different culture
the countries ha
kinds of proble
ly the way in wh
environment in
perceptions, and

S. Generalizes from data.

S. Gains information by studying films.

G. The nations of the world are interdependent.

-33-

CULMINATING SECTION

ted on many dif-
ferent regions, de-
pending upon the
study. Some are
based on the basis
of a single
region, and some
on the basis of
national relation-

These regional studies have indicated dif-
ferent culture regions, even though many of
the countries have faced some of the same
kinds of problems. They also indicate clear-
ly the way in which man uses his physical
environment in terms of his cultural values,
perceptions, and levels of technology.

data.

by studying films.

the world are in-

CULMINATING PROCEDURES ON LATIN AMERICA AND THE COURSE

1. Show a series of slides or pictures which you have not used before of the different Latin American regions studied. Try to choose pictures which are fairly typical of these regions. Now ask children to try to identify where the picture was taken (in general terms). Why do they think so? Why can't they tell?
2. Ask: Why do you think we looked at each of these case studies as separate regional studies? Do you think that this system of regionalization was justified? Why or why not?
3. Discuss: How do the Latin American countries differ from the U.S.? From Canada?
4. Hold a summarizing discussion in which pupils identify some of the problems which face many of the Latin American countries. What problems do they seem to have in common, if any? What problems do some have which others do not have?
5. Perhaps show a film illustrating some of the problems facing Latin American countries or our relations with them.
6. Have a group of pupils prepare a bulletin board display in which they illustrate the products which the U.S. gets from Latin American countries. Discuss: How important are these products to us?

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

1. Geographers seek information about areas on the earth's surface which enables them to compare, synthesize, and generalize about these areas.

2. Geographers ask different questions about places, depending upon their purposes at the moment.

G. Maps make it possible to discern patterns and relationships among a vast amount of data.

7. Give pupils a statement which represents a geographic deterministic point of view. Ask them to write a brief paper indicating what they think of this statement. Then discuss the papers.

8. Discuss: What factors have brought about changing use of the environment in Latin American countries? Are these factors at all like any of those which brought about the changing use of the environment in the U.S.? in Canada?

9. Ask: Have your ideas about what a geographer does changed at all since you began the study of geography this year? If so, how? Have your ideas about people's use of the land changed? If so, how? Have your ideas about the value of maps changed? If so, how?

BIBLIOGRAPHY

I. Textbooks for Pupils

Borchert, John and Jane McGuigan. Geography of the New World. Chicago: Rand McNally, 1961.

Lindop, Edmund, et.al. Understanding Latin America. Boston: Ginn, 6 ed.

II. Secondary School and College Texts:
Sources of Maps and Tables

Deasy, et.al. The World's Nations. Philadelphia: Lippincott, 1958.

Kohn, Clyde and Dorothy Drummond. The World Today, Patterns and Cultures. New York: McGraw-Hill, 1963.

James, Preston. Latin America. New York: Odyssey Press, 1959.

Saveland, Robert and Robert Glendinning. World Resources, Western Hemisphere. Boston: Ginn, 1966.

Wheeler, Jessie H., et.al. Regional Geography of the World. New York: Holt, 1955.

1679
C1

Grade Five
Unit VII: LATIN AMERICA
SUB-UNIT : CASE STUDY ON BUENOS AIRES

RESOURCE UNIT

These materials were developed by the Project Social Studies Center of the University of Minnesota under a special grant from the U.S. Office of Education. (Project No. HS-045)

OBJECTIVES

This unit should make progress toward developing the following:

GENERALIZATIONS

1. Things can be located at specific points on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude.
2. Temperature is affected by distance from the equator, elevation, distance from warm water bodies, prevailing winds, and physical features which block winds from certain directions.
3. Rainfall is affected by distance from bodies of water, ocean currents, wind direction, temperature, and physical features which block winds carrying moisture.
4. Soil in a particular place is affected by the type of basic rock in the region; the climate; vegetation; erosion; wind, glaciers and rivers which move soil; as well as by how man treats the soil.
 - a. Nature changes the character of the earth through biotic processes.
5. Vegetation and what can be grown is affected in part by soil.
6. The amount of moisture and crops is affected when the area receives rain and by the temperature.
 - a. The time of year and its precipitation affects culture. If it rains more in one season, it makes a difference.
 - b. The land in high mountains is not so warm as the warm air in the lowlands. Therefore, more rain falls in these regions. The crops are not so hardy.
7. Mountains frequently receive more water for rivers.
8. Grain crops are grown on relatively flat lands in the lowlands.
9. Man uses his physical environment to his advantage.
 - a. Man changes the environment to his advantage.
 - b. The significance of cultural development is outside of the physical environment.

- i -

OBJECTIVES

toward developing the following:

6. The amount of moisture needed for vegetation and crops is affected by the time of year when the area receives most of its moisture and by the temperature of an area.
 - a. The time of year when an area receives its precipitation is important to agriculture. If it comes during the growing season, it makes it easier to grow crops.
 - b. The land in hot regions dries fast as the warm air picks up moisture; therefore, more rain is needed to grow crops in these regions than in regions which are not so hot.
7. Mountains frequently provide sources of water for rivers and so for irrigation.
8. Grain crops are raised more easily on relatively flat lands than in hills and mountains.
9. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
 - a. Man changes the character of the earth.
 - b. The significance of location depends upon cultural developments both within and outside of an area.

- 1) A change in situation brings about a corresponding change in the use of a site.
 - c. Types of agriculture in a region depend upon man's cultural values, perceptions and level of technology as well as upon climate, soils, and topography.
 - d. Migration involves the movement of culture and material objects to other parts of the world and results in changing those areas.
10. The world is a community of interdependent countries.
- a. People in most societies of the world depend upon people who live in other communities, regions, and countries for goods and services and for markets for their goods.
 - b. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.
 - c. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, landforms, etc.

- d. Imp
pos
we
to
- 11. Towns
out; t
portat
ferent
- a. Cit
ten
in
be
to
por
com
- b. Fac
iti
tor
att
- 12. Popula
earth's
thinly
- 13. Cultur
diffus
- 14. Changes
effects
whethe
organiz
is a p
- 15. Machin
produc

-ii-

situation brings about
ding change in the use

ulture in a region de-
s cultural values, per-
level of technology as
limate, soils, and top-

lves the movement of
terial objects to other
orld and results in :
areas.

mmunity of interdepen-

societies of the world
ople who live in other
egions, and countries
services and for mark-
goods.

ely to grow up if they
ons which are needed
ding community or for
onal region.

o be produced better
an in another be-
e, resources, trans-
es, access to re-
to markets, people's
ms, etc.

d. Improved transportation facilities make possible wider and bigger markets as well as better and less costly access to resources.

11. Towns need means of shipping goods in and out; they are likely to grow up where transportation is good, particularly where different types of transportation meet.

a. Cities which become big trading centers tend to grow up where there is a break in transportation and so where goods must be moved from one type of transportation to another or from one company's transportation facilities to those of another company.

b. Factories need good transportation facilities, but large cities with many factories and large numbers of people also attract improved transportation facilities.

12. Population is distributed unevenly over the earth's surface; many of the land areas are thinly populated.

13. Culture traits may change by a process of diffusion.

14. Changes in one aspect of a culture will have effects on other aspects; changes will ramify whether they are technological, in social organization, in ideology, or whatever else is a part of the cultural system.

15. Machinery and power make possible greater production per person.

-iii-

16. New innovations and discoveries open up new fields of production and make possible an increased output in old fields of production.
17. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.
8. Tests hypotheses against data.
9. Generalizes from data.

ATTITUDES

1. IS SCEPTICAL OF THE FINALITY OF KNOWLEDGE; CONSIDERS GENERALIZATIONS AND THEORIES AS TENTATIVE, ALWAYS SUBJECT TO CHANGE IN THE LIGHT OF NEW EVIDENCE.

SKILLS

1. Sets up hypotheses.
2. Draws inferences from pictures.
3. Interprets tables.
4. Uses atlas index to locate places.
5. Interprets map symbols in terms of map legend.
6. Develops a system of regions to fit a particular purpose.
7. Applies previously-learned concepts and generalizations to new data.

Objectives

Outline

- S. Uses atlas index to locate places.
- G. Things can be located at specific points on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude.
- S. Draws inferences from pictures.

I. Buenos Aires Pampas region
The pampas has production.

A. The pampas

- G. Rainfall is affected by distance from bodies of water, ocean currents, wind directions, temperature, and physical features which block winds carrying moisture.
- G. Mountains frequently provide sources of water for rivers and so for irrigation.
- S. Develops a system of regions to fit a particular purpose.

I. The land
Great P

-1-

Outline of Content

- locate
- I. Buenos Aires is the chief city for the Humid Pampas region of southeastern South America. The pampas have the potential for rich farm production.

- ed at spe-
e earth's
signated by
t described
e and longi-
- om pictures.
- A. The p mpas are like steppes.

- d by distance
r, ocean cur-
ons, tempera-
features
arrying mois-
- y provide sour-
vers and so
- regions to
pose.
- I. The land relief is much like that of our Great Plains.

Teaching Procedures

1. Have a pupil use an atlas index to locate Buenos Aires on a large wall map.

2. Project a picture of farming on the pampas today. What can pupils tell about what the land looks like? about the soil? about the climate?

3. Project a cross sectional diagram of Argentina including Buenos Aires and the Andes. Discuss possible effects of the Andes on Argentina.

4. Have pupils study a physical map of Argentina and try to divide the country up into regions according to physical features. They might do this on a sheet of acetate

Lind
Amer
Whit
U.S.
p. 2
Amer
Film
Sout
Eyeg

e. g
Unde
p. 4

ures

atlas index to locate Buenos Aires

of farming on the pampas today. What
but what the land looks like? about
the climate?

ctional diagram of Argentina including
the Andes. Discuss possible effects of
tina.

a physical map of Argentina and try
try up into regions according to phy-
they might do this on a sheet of acetate

Materials

Lindop, Understanding Latin
America, p. 332.

Whittemore, et. al., The
U.S., Canada, Latin America,
p. 29 (of section on Latin
America.)

Filmstrip: Farm Lands and
Southern South America,
Eyegate, frames 12-14.

e. g. Gartler, et. al.,
Understanding Argentina,
p. 4.

S. Interprets map symbols.

G. Man changes the character of the earth.

A. IS SCEPTICAL OF THE FINALITY OF KNOWLEDGE; CONSIDERS GENERALIZATIONS AND THEORIES AS TENTATIVE, ALWAYS SUBJECT TO CHANGE IN THE LIGHT OF NEW EVIDENCE.

S. Sets up hypotheses.

G. Temperature is affected by distance from the equator, elevation, distance from warm water bodies, prevailing winds, and physical features which block winds from certain directions.

S. Tests hypotheses against data.

a. The ban

b. The war

c. Sou
lak
dur
is

2. Most o
althou
the we

3. The cli
like th

a. Summ
are

1) T
d
l

2) T
h
f

-3-

- a. The Plata River is bordered by a steep bank called the barranca.
- b. The land slopes only gradually southward.
- c. South of Buenos Aires is an area of lakes during rainy seasons and marshes during the rest of the year. This area is known as the Salada Slough.

2. Most of the land is covered by short grass, although there are some scrub trees along the western limits of the Pampas.

3. The climate of the humid pampas is much like that in Southeastern United States.

a. Summers are long, hot, and humid; winters are short, mild, and humid.

1) The growing season varies from 300 days close to Buenos Aires to about 140 days south of Bahia Blanca.

2) There are some frosts, but snow is not heavy; therefore the area can be used for year-round grazing.

ols.

acter of the

FINALITY OF
RS GENERALIZA-
AS TENTATIVE,
CHANGE IN THE
NCE.

ected by distance
levation, dis-
er bodies, pre-
physical fea-
inds from cer-

ainst data.

over a large map of Argentina drawn on a piece of chalkboard. Now locate the pampas. What kind of relief is found in this area? Tell pupils the meaning of the name.

Point out the area of the Salada Slough. Ask: What is its elevation? What might this area be like if it were very dry? If it got a great deal of precipitation? Tell pupils to check on what it is actually like after they have learned about the climate of the region.

5. Remind pupils of the photo of the pampas. Ask: Did you see any trees? Now show pupils a map of vegetation in the region. What kind of vegetation is pictured for the area on the map? What might account for the difference? Tell pupils about the bunch grass discovered by the white men in this area and the location of scrub trees. Also tell them that Indians burned the land over frequently to make hunting easier. What might have happened to any trees in the area? Point out some of the theories about what vegetation was like originally.
6. Have pupils examine a physical map to note the location of the pampas in relationship to the equator. Remind them once again to study the elevation. Show them a map of wind directions. Then ask: What do you think the temperatures would be like in the pampas as a whole? in Buenos Aires? in the rest of Argentina?

Now let pupils check their hypotheses against actual temperature charts. Ask: When does Argentina get its summer? its winter? How much range of temperature does it have? What effect would this temperature range have upon agriculture?

-4-

tina drawn on a piece of chalk-
mpas. What kind of relief is
pupils the meaning of the name.

Salada Slough. Ask: What is
t this area be like if it were
eat deal of precipitation? Tell
t is actually like after they
imate of the region.

See James, Latin America,
p. 325.

o of the pampas. Ask: Did you
pupils a map of vegetation in
vegetation is pictured for the
ght account for the difference?
ch grass discovered by the white
ocation of scrub trees. Also
rned the land over frequently to
t might have happened to any
out some of the theories about
originally.

For vegetation map, see
James, Latin America, p.
44.

ical map to note the location
hip to the equator. Remind
he elevation. Show them a map
ask: What do you think the tem-
the pampas as a whole? in
of Argentina?

For maps of S. America, see
James, Lat. Am., p. 25.

hypotheses against actual tem-
en does Argentina get its sum-
range of temperature does it
his temperature range have upon

"Student Atlas."

S. Sets up hypotheses.

S. Sets up hypotheses.

S. Tests hypotheses against data.

G. Rainfall is affected by distance from bodies of warm water, ocean currents, wind directions, temperature, and physical features which block winds carrying moisture.

G. The amount of moisture needed for vegetation and crops is affected by the time of year when the area receives most of its moisture and by the temperature of an area.

G. The time of year when an area receives its precipitation is important to agriculture. If it comes during the growing season, it makes it easier to grow crops.

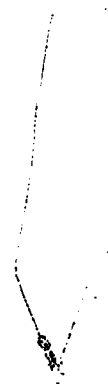
G. The land in hot regions dries fast

b. P
i
w

1

2

3



b. Precipitation is adequate for agriculture in most of the area, although the southwestern part is fairly dry.

- 1) There are violent thunderstorms when the cool air masses which cross the Andes from the northeast meet the sultry warm air masses from the tropics.
- 2) Precipitation is heavier in the summer months than in the winter months. (However, it should be remembered that the summer months are December, January, and February in Argentina.)
- 3) Less rainfall is needed in the southern part of the pampas, because temperatures are lower and there is less evaporation.

t data.

distance
er, ocean
ns, tem-
features
ng mois-

needed for
affected
n the area
isture and
n area.

n area re-
n is impor-
f it comes
on, it makes

dries fast

Give pupils figures on the variation in length of growing seasons for different parts of the pampas. Compare with the length of the growing season in some parts of the U.S. which they have studied, including their own state.

7. Have pupils compare average temperatures in Buenos Aires with those of some of the cities in the eastern part of the United States. Discuss the implications and set up hypotheses about possible effects. "Student

8. Have pupils look at the different map patterns once more. Ask: What would you expect to find true of precipitation in Argentina as a whole? in the different parts of the pampas? in Buenos Aires? Why?

Have pupils check their guesses against a precipitation map and against a table showing precipitation for Buenos Aires. Discuss reasons for this pattern. Also ask: How would this amount of precipitation affect agricultural production? Gartler
Argenti

Tell pupils that less rainfall is needed to grow crops in the southern part of the pampas than in the northern part. Ask: Why?

-6-

e variation in length of grow-
parts of the pampas. Compare
owing season in some parts of
studied, including their own

ge temperatures in Buenos Aires
cities in the eastern part of
ss the implications and set up
effects.

"Student Almanac."

fferent map patterns once more.
ct to find true of precipitation
in the different parts of the
Why?

uesses against a precipitation
howng precipitation for Buenos
or this pattern. Also ask:
precipitation affect agricul-

Gartler, et.al., Understanding
Argentina, p. 10.

nfall is needed to grow crops
ne pampas than in the northern

as the warm air picks up moisture; therefore more rain is needed to grow crops in these regions than in regions which are not so hot.

- S. Develops a system of regions to fit a particular purpose.

- G. Soil in a particular place is affected by the type of basic rock in the region, the climate, vegetation, erosion, wind, glaciers and rivers which move soil, as well as by how man treats the soil.

- G. Vegetation and what can be grown is affected in part by soil.

- S. Interprets map symbols in terms of map legend.

- S. Sets up hypotheses.

- S. Sets up hypotheses.

4. S
a
b
c

B. The
othe
powe

-7-

picks up moisture;
rain is needed to
these regions than
are not so hot.

of regions to
purpose.

ar place is af-
of basic rock
climate, vege-
wind, glaciers and
soil, as well as
the soil.

t can be grown is
y soil.

ools in terms of

4. Soils on the pampas are deep and fertile.
 - a. Much of it was carried to this region by winds from the arid and semi-arid regions of western Argentina.
 - b. A large area has much alluvial soil left by eroded mountains.
 - c. The soil is very deep. For example, Buenos Aires is 985 feet above bedrock.

B. The pampas are almost without natural resources other than soil. The region also lacks water power potential.

9. Have pupils make another map of Argentina based upon climate. They should make it on acetate and place it over the earlier one they made based upon physical features (activity #4). Have the class compare the two patterns. What relationships do they notice?
10. Have pupils examine a soils map of South America or of Argentina. What kinds of soil are found in the pampas? Now describe the soil and the sources of the soil. Tell pupils about the depth of the soil. Discuss the implications for agriculture. For ge
Goode's
the se
11. Have pupils look at a minerals map. What minerals do they find in Argentina? in the pampas? What do they think this might mean for Buenos Aires? Kohn an
day, pp
12. Have pupils examine a physical map once more. They should note the rivers and the areas through which the rivers flow. Ask: Do you think that the people could develop much water power on these rivers? Why or why not? Then quote James on the water power potential close to Buenos Aires. James,

map of Argentina based upon climate. Cut it on acetate and place it over a map of Argentina based upon physical features. The class compare the two patterns. What do they notice?

Soils map of South America or of Argentina. What types of soil are found in the pampas? What are the sources of the soil. Tell the class about the soil. Discuss the implications.

For general soils map, see Goode's World Atlas. Project the section which is needed.

Minerals map. What minerals do they find in the pampas? What do they find near Buenos Aires?

Kohn and Drummond, World Today, pp. 272-273.

Physical map once more. They should identify the areas through which the rivers flow. What do the people could develop much water power? Why or why not? Then quote the potential close to Buenos Aires.

James, Lat. Am., pp. 358-359.

- S. Sets up hypotheses.
- G. Towns need means of shipping goods in and out; they are likely to grow up where transportation is good, particularly where different types of transportation meet.

C. Buenos Aires
Rio De La Plata
flow. H
shallow,
the silt
Aires si

- S. Sets up hypotheses and tests .
against data.
- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

II. We look at the
pampas in the
pied by Indians
the Puelche,

A. The Puelche
they did
burn grass
dug roots
vegetation

B. They had
around to
to the ll
like bird
meat.

C. They roam
frequently

D. Their pri
were the l

-9-

- C. Buenos Aires is located on a good spot in the Rio De La Plata into which two important rivers flow. However, the Rio De La Plata is very shallow, and sand bars build up quickly from the silt coming down from the rivers. The Buenos Aires site does not have a good natural harbor.

Shipping goods
likely to
rotation is
ere different
on meet.

tests

environmental
values,
of technol-

- II. We look at the Buenos Aires region and the humid pampas in the period 1450-1550 when it was occupied by Indians. We will look at how one tribe, the Puelche, lived in this area.
- A. The Puelche had a hunting and gathering economy; they did little to modify the land except to burn grass to make it easier to hunt. They also dug roots and used some of the other existing vegetation for food.
 - B. They had no permanent villages but rather moved around to hunt the guanaco, an animal similar to the llama, and the rea which was an ostrich-like bird. These were their main sources of meat.
 - C. They roamed in small bands across the pampas, frequently fighting each other.
 - D. Their principal weapons for fighting or hunting were the bow and arrow, the loose, and the bolo.

13. Have pupils look once more at the site of Buenos Aires. If possible project a large scale map showing its location and the rivers entering the bay. Show pictures of the rivers. Ask: What possible advantages can you see to this location? Why? (Ask pupils to consider rivers and what they have already learned about the physical features and climate and soils of the country.)

James
p. 35
For p
Arger
Eyega

Read aloud a brief description of the bay and sand bars. Ask: What do you think about the advantages of this site now? Does it have as many advantages as Seattle had? as New York had? etc. Would you expect it to become an important port? Why? Let pupils set up hypotheses to test later.

14. Tell pupils that they are now going to find out how the early Indians lived in this pampas region. Ask: How do you think they might have lived? Now have a pupil give a report or read aloud a brief description, or just tell pupils how they lived. Ask: Why do you think they might have set fires to burn over parts of the pampas? Why didn't they build permanent villages?

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology. III. We look under th

S. Draws inferences from pictures.

S. Applies previously-learned concepts and generalizations to new data.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

G. Culture traits may change by a process of diffusion.

A. Sever at th did n attem were used

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

B. The cl vide a water to Asc to tra went c to go

S. Sets up hypotheses.

C. When (1778 24,000 in pop tion u

-11-

environment
al values,
of technol-

- III. We look at Buenos Aires and the humid pampas under the early Spanish rule from 1580 to 1780.

pictures.

rned concepts
new data.

environment
al values,
of technol-

ge by a

- A. Several attempts were made to establish a town at the present site of Buenos Aires, but they did not succeed until 1560. When an earlier attempt was made, some of the horses and donkeys were freed. They multiplied rapidly and were used by the Indians.
- B. The chief purpose of the early town was to provide a place where ships could take on fresh water and supplies before sailing up the river to Ascunsion. The people were not permitted to trade with Europe, although some smuggling went on. The Spanish wanted all of the trade to go through Peru.
- C. When the town was finally opened up for trade (1778), it had an estimated population of 24,000. The trade brought about an increase in population, but the city still had a population under 90,000 by 1850.

environment
al values,
of technol-

-12-

15. Project a drawing of what Buenos Aires looked like in 1700. Discuss: What can you tell from this drawing about the population? size? about activities carried on in the town? L p.

16. Tell pupils that the Spanish explorers thought that the pampas were useless. Ask: Why do you think they might have thought this? What were they looking for?

17. Have a pupil report on the early attempts to establish a town at this site, including the way in which Spanish animals were freed and used by Indians and later colonists. Li pp

18. Tell pupils how the Spanish sent goods to South America via Peru for many years and how the port was used later to aid ships but not trade. Discuss the effects upon the town of Buenos Aires. Se an 40

19. Tell the class about the opening up of the town to trade in 1778. Have pupils look up the estimated population of Buenos Aires in 1778. Ask: What would be likely to happen to the population growth in the next years? "S

-12-

What Buenos Aires looked like in
1550. How do you tell from this drawing
what the size was? about activities carried

Lindop, Understanding Lat. Am.,
p. 320.

What Spanish explorers thought that the
continent was like. Why do you think they might
have been looking for?

Describe the early attempts to establish a
settlement. How do you think Spanish
settlements were influenced by Indians and later colon-

Lindop, Understanding Lat. Am.,
pp. 320-321.

How did Spanish goods sent to South America
and how the port was used later
developed. Discuss the effects upon

See description in Hall, Land
and People of Argentina, pp. 39-
40. Also see background paper.

Discuss the opening up of the town to trade
and how the population of
the town grew. What would be likely to hap-
pen in the next years?

"Student Almanac."

S. Draws inferences from pictures.

S. Tests hypotheses against data.

S. Sets up hypotheses.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

G. Migration involves the movement of culture and material objects to other parts of the world and results in changing those areas.

D. The e
not t

1. A
th
Sp
la
es
fo
ga

2. Th
Sp
na

3. Th
pa
ha
fr

-13-

from pictures.

against data.

s.

ical environment
ultural values,
level of technol-

s the movement
terial objects
the world and
ng these areas;

D. The early settlers in the region were herders,
not tillers of the soil

1. A line of forts was built along the edge of the Salada Slough to guard against Indians. Spanish families were given large grants of land north of the Slough, and they established estates known as estancias. They built houses for workers who became their herders or gauchos.
2. The estancia owners substituted herds of Spanish cattle, horses and sheep for the native South American animals.
3. The Spanish did not try to extend their land past the forts and out of the Slough; they had enough land and they needed protection from the Indians.

Project a drawing of what Buenos Aires looked like around 1850. Ask: How does the town compare with that in 1700? How many years have passed while these changes took place?

20. Read aloud a quotation from Hall describing the difficulties of unloading goods and passengers at Buenos Aires before the new present-day harbor was dredged and built. Discuss: Were you correct in your earlier ideas about the harbor? What effect would this lack of a good harbor have upon Buenos Aires? What might be done to improve the situation?
21. Tell pupils about how early settlers set up estancias and raised livestock. Project a map showing the border of settlement as late as 1850. Have pupils identify the slough. (Use another map if necessary). Tell pupils about forts. Ask: Why do you think they were built? Why would most of those living on the land remain north of the forts?

-14-

Buenos Aires looked like a-
es the town compare with that
have passed while these changes

Lindop, Understanding Lat. Am.,
p. 321.

om Hall describing the difficul-
nd passengers at Buenos Aires
y harbor was dredged and built.
t in your earlier ideas about
would this lack of a good har-
s? What might be done to im-

Hall, Land and People of Ar-
gentina, p. 95.

ly settlers set up estancias
oject a map showing the border
1850. Have pupils identify the
(if necessary). Tell pupils
o you think they were built?
iving on the land remain north

James, Latin Am., p. 327.

-15-

- S. Sets up hypotheses.
- G. Migration involves the movement of culture and material objects to other parts of the world and results in changing those areas.
- G. Man changes the character of the earth.

- 4. Some of animals native to the region and their vegetation.

IV. We look at Buenos Aires

- S. Draws inferences from pictures.
- S. Sets up hypotheses.
- S. Tests hypotheses against data.
- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
- G. People in most societies of the world depend upon people who live in other communities, regions, and countries for goods and services and for markets for their goods.

- A. Today Buenos Aires is a city of people, and its population is increasing. The region with the most fertile soil and the most vegetables, fruits, and flowers is the region around the city.
- 1. The city is a city of factories.
- 2. The city is a city of people who carry on their lives in the city in the city.

-15-

4. Some of the seeds brought in with the Spanish animals spread in this area and drove out the native bunch grass; before long the grass vegetation showed marked differences.

IV. We look at Buenos Aires and the humid pampas today.

- A. Today Buenos Aires has a population of 4,274,641 people, and the pampas have a fairly dense population. The region has become an agricultural region with the production of wheat and corn and vegetables, etc. as well as continued herding.

1. The city is a modern city with skyscrapers and factories.
2. The city has an excellent man-made harbor and carries on more foreign trade than any other city in the western hemisphere but New York.

22. Tell pupils about the demarcation between kinds of grass at the Slough line. Look at this line in relationship to a settlement map. Ask: What might account for the difference in type of grass? Now tell pupils about the introduction of European seeds.

23. Have a pupil tell the class about how and when Argentina won its independence from Spain.

24. Project photos of Buenos Aires today. Ask: What do these pictures show about how the city has changed since 1850?

Have pupils read descriptions of the city today to check on these inferences and find out more things about what the city is like.

Ask: What kinds of factories are found in the city? How else do people make a living besides working in factories? Where do you think the factories might get the raw materials they need?

You may wish to supplement other reading with tables or brief written excerpts about some of the plants which process goods coming from other parts of Argentina than from the pampas. Ask: Do you think these products needed might be found on the pampas? Why or why not?

arcation between kinds of grass
at this line in relationship to
What might account for the dif-
Now tell pupils about the in-
eds.

ass about how and when Argentina
Spain.

Aires today. Ask: What do
how the city has changed since

ons of the city today to check
nd out more things about what

ies are found in the city?
living besides working in fac-
k the factories might get the

nt other reading with tables or
ut some of the plants which
other parts of Argentina than
you think these products
he pampas? Why or why not?

See maps and photos in Gartler,
et.al., Understanding Argentina,
pp. 58, 61, 53, 54, 15.
Nat'l Geog., Nov. 1967, pp. 666-
667, 672-673, 678-679, 684, 688.
Hall, Land and People of Argen-
tina, ff. p. 65; Borchert and
McGuigan, Geog. of the New World,
pp. 418, 421; Lindop, Understand-
ing Lat. Am., pp. 319, 322, 323,
325; Filmstrip: Farm Lands
in Southern S. Am., Eyegate,
frame 11.

Hall, Land and People of Argen-
tina, ch. 17; Lindop, Under-
standing Latin Am., pp. 322-
326.

-17-

- S. Interprets tables.
- S. Sets up hypotheses.

3. The area ha

- S. Interprets tables.
- S. Generalizes from data.

- S. Sets up hypotheses.
- S. Interprets tables.
- S. Generalizes from data.

4. Most of the
Argentina a

- S. Sets up hypotheses.
- G. The significance of location depends upon cultural developments both within and outside of an area.

B. A number of fa
the city and
1. As Europe
grew, Europ
be grown in

-17-

3. The area has a dense population.

4. Most of the population of the city and of Argentina are of European descent.

B. A number of factors account for the growth of the city and of the population within the pampas.

1. As Europe became urbanized and as population grew, Europeans needed more food than could be grown in Europe.

25. Project a table showing changes in the population in Buenos Aires from 1580 (when it was founded) to the present day. Or have a pupil prepare a graph to illustrate these changes. Ask: What happened to the population growth after 1855? What might have brought about such growth?
26. Project a table showing area, population, population density, and urban population of different Latin American countries. Ask: Where does Argentina rank in terms of area? population? What proportion of its population lives in cities? Now figure out for pupils (or with them) 60 per cent of the total population of Argentina. Compare with the total population living in Buenos Aires and its metropolitan area. Ask: What proportion of the urban population lives in this one metropolitan area? (About 5 million people live in Greater Buenos Aires. About 13 million live in urban areas in Argentina.)
27. Give pupils figures or a table showing the division of population in Argentina among: (a) those of European descent who were born in Argentina, (b) European immigrants, (c) those of Indian or Negro or mixed descent. Ask: How does this division compare with the population of other countries studied thus far? Why do you think there are more people of European descent here than in the other Latin American countries? (Make guesses at this point.)
28. Give pupils a table to show the increase in population in Europe during the 19th century and tell them about the rapid urbanization of Europe at this time (or show figures which they can interpret). Ask: How might these population changes in Europe affect Argentina? (If necessary, ask pupils what would happen to food production in Europe as a result of urbanization there and what would be

-18-

es in the population in
(it was founded) to the
prepare a graph to illus-
what happened to the popu-
at might have brought a-

Early figures can be found in
teacher's edition of Lindop,
Understanding Lat. Am., pp. 321, -
320.

population, population den-
different Latin American
Argentina rank in terms of
rtion of its population
out for pupils (or with them)
lation of Argentina. Compare
ing in Buenos Aires and its
t proportion of the urban pop-
ropolitan area? (About 5
r Buenos Aires. About 13
n Argentina.)

Peterson, Latin America.

e showing the division of
: (a) those of European
ntina, (b) European immi-
r Negro or mixed descent.
compare with the population
us far? Why do you think
bean descent here than in
tries? (Make guesses at

See background paper and James,
Latin Am., pp. 297, 339.

ne increase in population
tury and tell them about
pe at this time (or show
et). Ask: How might these
ffect Argentina? (If neces-
ppen to food production in
t their and what would be

G. People in most societies of the world depend upon people who live in other communities, regions, and countries for goods and services and for markets for their goods.

S. Sets up hypotheses.

a.

G. Man uses his physical environment in terms of his cultural values, perceptions, and levels of technology.

b.

G. Changes in one aspect of a culture will have effects on other aspects; changes will ramify, whether they are technological, in social organization, in ideology, or whatever else is a part of the cultural system.

c.

G. Soil in a particular place is affected by vegetation and by how man treats the soil.

d.

G. Nature changes the character of the earth through biotic processes.

S. Applies previously-learned concepts and generalizations to new data.

2. The
win
win
more

s of the
e who live
regions,
and serv-
r their

nvironment
l values,
of technol-

f a culture
her aspects;
ether they
ocial organ-
r whatever else
al system.

ace is affected
y man treats

acter of the
ocesses.

ed concepts
ew data.

- a. The British, who became interested in getting beef from Argentina, did not like the taste of the Argentine beef which came from scrub cattle. They shipped in new varieties of high-grade cattle.
- b. These new cattle needed better feed than the scrub grass, and they needed to be transported to market rather than driven to market. (They could not stand the long drives with little feed or water that the scrub cattle could.)
- c. The farmers discovered that alfalfa was the best feed crop which could be grown. However, it needed cultivation, and harvesting and so required more workers.
- d. Immigrants were brought in, particularly from Italy; by 1914 there were over two million immigrants living in the country.

2. The development of agricultural machinery, windmills, well-drilling machinery and barbed wire made it possible to farm the pampas much more extensively.

the effect of increased population upon demand.)

29. Tell the class that the British were the first Europeans to become really interested in Argentina as a source of food. Why might this be so? (Show a map of Europe and tell the class that Britain was the first to industrialize.) Then explain briefly why the British did not like the Argentine beef. Ask: If you had been the British what might you have done in this situation?

Tell the class about the introduction of British cattle. Ask: How do you think these cattle would stand up under long drives across the pampas with little feed or water as compared to the way in which the scrub cattle stood up? Why?

Now tell the pupils that these new cattle did not like the scrub grass of the country and that the farmers introduced alfalfa. Ask: Why might it be good besides being a good feed crop? (Review from Phoenix unit or have a pupil give a report on alfalfa's properties.) Point out that alfalfa needs to be harvested. Ask: What effect would the introduction of alfalfa as a feed crop have upon the need for workers? Tell pupils that land-owners had to import many workers from Europe. Ask: How might they persuade them to come? Now tell the class about the arrangements for tenants.

30. Ask: What would be needed besides a demand for food to get a big increase in production on the pampas? (Ask further questions as needed to bring out the need for machinery, for fences if farmers wished to keep new cattle from mixing

- G. Machinery and power make possible greater production per person.
 - G. New innovations and discoveries open up new fields of production and make possible an increased output in old fields of production.
 - S. Draws inferences from pictures.
 - G. Grain crops are raised more easily on relatively flat lands than in hills and mountains.

 - G. Improved transportation facilities make possible wider and bigger markets as well as better and less costly access to resources.
 - G. A change in situation brings about a corresponding change in the use of a site.
 - G. Man changes the character of the earth.

 - S. Applies previously-learned concepts and generalizations to new data.
 - G. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.
- 3. The inv
ble to

 - 4. The Bri
sums o
the par
cheaply
difficu
tions.
market
extens

 - 5. As trade
on the P
meet the
the trad

a. Facto
grain

-21-

ake possible
r person.

discoveries
production
increased out-
production.

pictures.

d more easily
nds than in

on facilities
nd bigger mar-
t and less
rces.

brings about
e in the use

cter of the

erned concepts
o new data.

row up if
which are
ing community
onal region.

3. The invention of refrigeration made it possible to preserve meat and ship it to Europe.

4. The British, who wanted food, invested huge sums of money in building railroads across the pampas. These roads could be built cheaply on the flat land, whereas roads were difficult to build because of the soil conditions. The railroads made it possible to market the grains and beef from a much more extensive area than before.

5. As trade with Europe increased and agriculture on the Pampas prospered, Buenos Aires grew to meet the needs of the hinterland and to handle the trade.

- a. Factories sprang up to process the meat and grains.

with the scrub cattle, of railroads for transportation, for refrigeration, etc.

Project photos or have pupils examine photos in books showing use of machinery in agricultural activities on pampas. Discuss: How did such machinery enable people to make use of more land in the pampas region? What effect does use of such machinery have upon costs of production? Why was it important that the pampas are relatively flat?

31. Show the class a railroad map of Argentina today. Ask: Who might have been willing to help build the roads? Why? Then tell pupils about the British investments.

32. Point out that trade with Europe increased greatly and that agriculture on the Pampas prospered. Ask: What would be the effects upon Buenos Aires? Why? What kinds of industries would be needed? What other kinds of services would be likely to develop to serve the people on the pampas?

-22-

railroads for transportation,

Students examine photos in books
in agricultural activities and
and such machinery enable people
in the pampas region? What
machinery have upon costs of
important that the pampas are

e.g. See Borchert and McGuigan,
Geog. of the New World, p. 419
for use of machine in harvesting
wheat.

map of Argentina today. Ask:
What is helping to help build the roads? Why?
What are the British investments.

For a railroad map of S. Am.,
see James, Latin Am., p. 53.
For a railroad map of the pampas,
see James, p. 338.

European trade increased greatly and
the pampas prospered. Ask: What
helped Buenos Aires? Why? What kinds
of services were needed? What other kinds of serv-
ices developed to serve the people on

- G. Man changes the character of the earth.
- G. Improved transportation facilities make possible wider and bigger markets as well as better and less costly access to resources.
- G. Cities which become big trading centers tend to grow up where there is a break in transportation and so where goods must be moved from one type of transportation to another or from one company's transportation facilities to those of another company.
- S. Draws inferences from maps.
- S. Applies previously-learned concepts and generalizations to new data.
- G. Factories need good transportation facilities, but large cities with many factories and large numbers of people also attract improved transportation facilities.
- G. Improved transportation facilities make possible wider and bigger markets as well as better and less costly access to resources.

b. Stop both people

c. Explored harbors made the

-23-

- b. Stores and banks, etc., developed to supply both the people in the hinterland and the people coming into the city.

- c. Expensive dredging created an excellent harbor, and the building of extensive docks made it easy to transport goods to and from the city by ship.

the
ilities
ger
nd less

ing
e there
and so
om one
other
ortation
er com-

oncepts
ata.

tation
with
bers
ved

ilities
er
d less

33. Remind pupils of the problems of landing and taking of goods by ship during the 19th century. Ask: Why would there be increased pressure upon the government to improve the harbor and build more docks? Have pupils read about the work done to make good port and dock facilities for Buenos Aires. (Perhaps show a picture of dredging.) Ask: What effects would this work be likely to have upon the city?
34. Again have pupils examine a railroad map of Argentina. What does this map show about the position of Buenos Aires in relationship to railroad lines? Why do you think the railroad centered on this city rather than on one of the other cities in Argentina?
35. Remind pupils about what they learned earlier about the problems of road building in Argentina. Now project a photo of a modern highway. Ask: How did the people

of landing and taking on
 century. Ask: Why would
 upon the government to im-
 ore docks? Have pupils read
 good port and dock facilities.
 (show a picture of dredging.)
 work be likely to have

e.g. See Lindop, Understanding
 Latin Am., pp. 322.
 Filmstrip: Argentina - The
 Land and People, Eyegate, Frame
 74; Whittemore, et.al., The U.S.,
 Canada, and Lat. Am., pp. 36-37
 of section on Lat. Am.

railroad map of Argentina.
 the position of Buenos
 road lines? Why do you
 n this city rather than on
 gentina?

For a railroad map of S. Am.,
 see James, Lat. Am., p. 53;
 For a railroad map of the pam-
 pas, see James, p. 338.

learned earlier about the
 Argentina. Now project a
 sk: How did the people

Photo on p. 327 of Lindop,
Understanding Lat. Am., or on
 p. 39 of section on Lat. Am.

G. Changes in one aspect of a culture will have effects on other aspects; changes will ramify, whether they are technological, in social organization, in ideology, or whatever else is a part of the cultural system.

S. Generalizes from data.

C. The humid p
ricultural

S. Applies previously-learned concepts and generalizations to new data.

G. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.

G. Types of agriculture in a region depend upon man's cultural values, perceptions, and level of technology as well as upon climate, soils, and topography.

1. The Past
cast; o
for live

2. The Alfa
part of
grown, bu
There is

a. Immig
share
raiso
feedi

ure
cts;
ey
gan-
er
sys-

C. The humid pampas are divided into four main agricultural regions.

cepts
a.

more
e area
re are
aries
gions.

on de-
s, per-
ogy as
nd top-

1. The Pastoral district is located in the southeast; over 80 per cent of the land is used for livestock ranching.
2. The Alfalfa-wheat district is in the western part of the pampas. There is more alfalfa grown, but wheat is the main commercial crop. There is also considerable livestock ranching.
 - a. Immigrants have been brought in to farm on shares for limited period of years. They raise wheat for income and alfalfa for feeding the cattle.

overcome the earlier handicaps? Why would it be worth the time and effort to build such roads today but not fifty years ago? Have a pupil find out how many miles of improved roads are found in Argentina. He should compare it with that in the U.S., but should point out differences in the size of the two countries.

36. Project a map showing the extent of settlement in the humid pampas in 1875. Compare it with the earlier map of settlement in 1850. What had happened during this period? Why was so much of the pampa still unsettled? Now project a map showing the extent of use of the pampas today. How does this use compare with that in 1875? (Perhaps use a population density map to illustrate.)
37. Remind pupils of what they have read about the introduction of beef cattle from England. Show pictures of present-day ranching on the pampas.
38. Tell the class that landowners have begun to grow a number of crops. Show a map of the different agricultural regions of the pampas. Locate each of the regions and describe it briefly. Or project a series of maps showing the production of different crops and products and have pupils try to regionalize. Compare with a map showing regionalization.

Have pupils look at the map or maps more carefully. Do you think there would be a sharp line marking off the border between different kinds of agriculture? Why or why not? Perhaps project a map showing land use on an estancia in the pastoral region. Ask: Do you think it is fair to call this a region then? (Review regionalization and generalization about it.) Be sure that pupils

dicaps? Why would it be worth
uild such roads today but not
pupil find out how many miles
nd in Argentina. He should com-
U.S., but should point out dif-
the two countries.

in Whittemore, U.S., Canada
and Lat. Am.

e extent of settlement in the
ompare it with the earlier map
What had happened during this
of the pampa still unsettled?
g the extent of use of the pam-
s use compare with that in 1875?
n density map to illustrate.)

James, Lat. Am., p. 327 (map
of 1875); pp. 278, 338 (maps
of today).

ey have read about the introduc-
England. Show pictures of pres-
pampas.

Hall, Land and People of Ar-
tina, ff. 65; Lindop, Under-
ing Lat. Am., p. 33.

owners have begun to grow a num-
p of the different agricultural
Locate each of the regions and
project a series of maps showing
crops and products and have pupils
pare with a map showing regions.

James, Latin Am., p. 338 (i:
of agriculture).

map or maps more carefully. Ask:
d be a sharp line marking off the
kinds of agriculture? Why or
t a map showing land use on one
region. Ask: Do you think it
region then? (Review meaning of
n about it.) Be sure that pupils

For a map of an estancia, see
Thoman and Batton, Focus on
Geographic Activity, pp. 56-57;
or Whittemore, et.al., U.S.,
Canada, Latin Am., p. 24 of sec-
tion on Lat. Am.

G. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, landforms, etc.

S. Sets up hypotheses.

-27

b. Then the stock r and fin again.

3. The Maize Rosario and

a. Maize is cattle Europe

b. This re

1) Pean oil olive durin

2) Reven place produ

c. This re on large line ab tent be

4. The intens trict is re Aires, with the outer

a. These fa city.

b. The soil ing vey section

- b. Then the land is turned over to live-stock ranching for a period of years and finally over to alfalfa and wheat again.
- 3. The Maize district centers on the port of Rosario and is in the northern pampas.
 - a. Maize is not grown to feed hogs and cattle but rather to dry and ship to Europe as a poultry feed.
 - b. This region also has some other crops.
 - 1) Peanuts have been raised for vegetable oil for cooking as a substitute for olive oil which was not available during World War II.
 - 2) Recently sunflowers have largely replaced peanuts since their oil can be produced less expensively.
 - c. This region also has livestock ranching on large estates, although there is a line above which ranching does not extend because of cattle ticks.
- 4. The intensive truck, dairy, and fruit district is found around the city of Buenos Aires, with some vegetable gardens within the outer parts of the city.
 - a. These farms have a good market in the city.
 - b. The soil and climate are suited to raising vegetables and fruit, and the southern section is particularly suited to dairying.

realize that livestock raising is important in wheat and maize regions. (Relate to what pupils have learned about bringing workers and the incentives for tenant farmers.) Also ask: Why do you think that land close to Buenos Aires which was once used for livestock is now used for growing vegetables, fruit, and raising dairy cattle for dairy products.

Show the class pictures of sugar cane, oranges, and grapes growing in Argentina. Have pupils try to figure out where. They should set up hypotheses to check against data given in later reports.

-2-

ing is important in wheat and what pupils have learned the incentives for tenant do you think that land close once used for livestock is ables, fruit, and raising ducts.

sugar cane, oranges, and a. Have pupils try to figure t up hypotheses to check r reports.

Filmstrip: Argentina-Resources Industries, and Products, Eye-gate, Frames 7,9,10.

- S. Draws inferences from maps.
- S. Sets up hypotheses.
- S. Tests hypotheses against data.
- S. Generalizes from data.
- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
- G. People in most communities are dependent upon other communities, regions, and continents for goods and services and for markets for their goods.
- G. Machinery and power make possible greater production per person.

D. T
o
t
b
p

E. Bu
ce
ti
th
ma
vi
co

- S. Draws inferences from maps.
- S. Interprets tables.

-29-

aps.

t data.

nvironment
l values,
of tech-

es are
munities,
for goods
kets for

possible
erson.

ps.

D. The land holding system remains basically one of large owners with many tenant farmers, although some of the large estates have been broken up by inheritance laws and selling to pay debts.

E. Buenos Aires has become the transport and processing center for the other regions in Argentina as well as for the Pampas. It serves these regions but also benefits from the raw materials produced in them. The city also provides some other central functions for the country.

39. Project a drawing showing an estancia. Ask questions designed to have pupils figure out something about life on the estancia. Now have a pupil report on life on an estancia today. Afterwards discuss: How does life on an estancia compare with life on American farms you have studied? How does landholding compare?
40. Have four students prepare and present illustrations and reports on the other regions in Argentina outside the pampas. They should show each region on a map, show photos of the region to illustrate its characteristics, show maps and discuss the climate, point out natural resources and their uses, and describe how they are transported to Buenos Aires and processed, used or sold from there. After each report, discuss: How do Buenos Aires serve this region? How does it benefit from this region?
41. Tell pupils about the Quebracho forests of the northern region. Describe the tree and its uses. Locate the source on the map. Ask: Where do you think the wood would be taken to be sold?
42. Have pupils examine a population density map of Argentina. Where do the largest number of people live? How does the density outside of the pampas compare with the density in the rural parts of the pampas? Now give pupils

estancia. Ask questions
out something about life
pupil report on life on an
discuss: How does life on
on American farms which we
holding compare?

Gray, Exploring American Neigh-
bors, p. 202 (drawing).
HALL, Land and People of Argen-
tina, ch. 16. Lindop, Under-
standing Latin America, pp.
333-334. Whittenne, et. al.,
The U.S., Canada, Latin America,
pp. 20-25 of section on Latin
America.

and present illustrated re-
Argentina outside of the
ch region on a map, show
trate its characteristics,
mate, point out its re-
escribe how they are trans-
ocessed, used or shipped
t, discuss: How does
on? How does it benefit

Lindop, Understanding Latin
America, pp. 328, 335-341.
Whittemore, et.al., U.S.,
Canada and Latin America, pp.
40-45 of section on Latin
America. Gartler, et.al.,
Understanding Argentina.
Filmstrip: Argentina - The
Land and People, Eyegate.
Argentina - Resources, Indus-
tries, and Products, Eyegate.

cho forests of the Chaco
and its uses. Locate the
where do you think the tannin

James, Latin America, pp.
315-316.

ion density map for Argen-
number of people live? How
the pampas compare with that
pas? Now give pupils fig-

Gantler, et.al., Understanding
Argentina, p. 22. (map).
See figures in James, Latin
America, p. 296.

- S. Tests hypotheses against data.
- G. Population is distributed unevenly over the earth's surface; many of the land areas are thinly populated.

- S. Applies previously-known concepts and generalizations to new data.

- S. Interprets tables.
- G. The world is a community of interdependent countries.
- G: People in most communities are dependent upon other communities, regions, and continents for goods and services and for markets for their goods.

- S. Interprets tables.
- S. Generalizes from data.

data.

uneven-
ce; many
ly pop-

concepts
w data.

of inter-

s are
unities,
or goods
ets for

F. Buenos Aires is the chief center for Argentina's trade with other parts of the world. Argentina is heavily dependent upon its exports and imports. The United States also benefits from trade with Argentina.

ures on the proportion of the country which falls within the humid Pampas (22%) and the proportion of the population living there (about 6%). Ask: What might be the reason for the distribution of population?

Have pupils look at figures on a percentage of the country's railroads in the Pampas region (70%), the percent of industrial production (85%), the percentage of the area used in cereal and flax production (86%), the percentage of total cattle production (63%), etc. Do pupils wish to modify their earlier hypotheses?

43. Have pupils study a map of Argentina and use the key to locate the capital city. Ask: How would the fact that Buenos Aires became the capital city affect the growth of the town?

44. Project a table showing the percentage of Argentine exports going to different countries and the percentage of imports coming from different countries. Ask: Which country buys the most goods from Argentina? Why do you think it buys more than the U.S. does? Which country sells the most goods to Argentina? Why do you think this might be true?

James, Latin America, pp. 292, 361.

45. Project a table showing the proportion of Argentine production which is exported. Compare with a similar table for the U.S. Or just give pupils rough proportions or a graph comparing these proportions. Ask: Which country is more dependent upon its exports? How can you explain this fact?

G. People in most communities, are dependent upon other communities regions and continents for goods and services and for markets for their goods.

S. Generalizes from data.

S. Interprets tables.

S. Generalizes from data.

46. Tell pupils that U.S. imports almost all of its asbestos from Argentina. Locate its source of supply on map. Ask: Why do we need asbestos? If necessary, have pupils use reference books to find out.
47. Have a pupil find out what else and how much we import from Argentina. Then have pupils locate sources of these products on a map.
48. Hold a summarizing discussion in which pupils are asked to compare the pampas with the other parts of Argentina and with other regions which they have studied in South America.
49. Project a table showing per capita income or calories per person etc. in South America. Ask pupils to compare living levels of those living in Argentina with those living in other parts of South America. What might account for this difference?

almost all of its asbestos
source of supply on map.
? If necessary, have pu-
ind out.

See Lindop, Understanding
Latin America, p. 339.

se and how much we import
pils locate sources of these

in which pupils are asked
e other parts of Argentina
they have studied in South

apita income or calories
ica. Ask pupils to compare
in Argentina with those
n America. What might ac-

Peterson, Latin America, pp.
95, 101.

168
01

Grade 5
Unit: Latin America
Sub-Unit : Case Study on Manaus

1

RESOURCE UNIT 7/4

These materials were developed by the Project Social Studies Center of the University of Minnesota under a special grant from the U.S. Office of Education. (Project No. HS-045)

1968

OBJECTIVES

GENERALIZATIONS

1. Phenomena are distributed unequally over the earth's surface, resulting in great diversity or variability from one place to another. No two places are exactly alike.
 - a. Population is distributed unevenly over the earth's surface; many of the land areas are thinly populated.
2. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, prevailing winds, and physical features which block winds from certain directions.
 - a. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.
3. Rainfall is affected by distance from bodies of water, wind direction, temperature, and physical features which block winds carrying moisture.
 - a. Winds which have been warmed and have picked up moisture crossing large bodies of warm water tend to cool as they rise over mountains and so drop their water on the side of the mountain from which they come.

4. Soil in the type of climate, glaciers, well as
 - a. Soil in part of depos
5. Vegetation and precipitation
 - a. Vegetation and factors
6. Differences in rainfall and number of days with rain
7. Man uses his knowledge of the level of the ground
 - a. Man uses his knowledge of the level of the ground
 - b. Types of crops grown upon the land and climate
 - c. The effect of the ground on the climate

- i -

OBJECTIVES

distributed unequally over the surface, resulting in great variability from one place to another. In some places the conditions are exactly

distributed unevenly over the surface; many of the most densely populated areas are in the lowlands.

affected by the distance from the equator, elevation, distance from the sea, prevailing winds, and mountain ranges which block winds and create rain shadows.

Seasonal differences in climate are more marked the further from the equator. Temperature ranges are greater at the equator than further north or south.

Temperature is affected by distance from the sea and direction, temperature features which include mountains and moisture.

Mountains have been warmed and have a cooling effect. As they cross large bodies of water they tend to cool as they descend and so drop the temperature on the side of the mountain they come from.

4. Soil in a particular place is affected by the type of basic rock in the region; the climate; vegetation; erosion; wind, glaciers, and rivers which move soil; as well as by how man treats the soil.
 - a. Soil in a particular place is affected in part by rivers which move soil and deposit it in the area.
5. Vegetation is affected by temperature, precipitation, and soil.
 - a. Vegetation and what can be grown are affected in part by soil.
6. Differing crops need differing amounts of rainfall and differing temperatures and number of frost free days in order to grow.
7. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
 - a. Man changes the character of the earth.
 - b. Types of agriculture in a region depend upon man's cultural values, perceptions and level of technology as well as upon climate, soils, and topography.
 - c. The significance of location depends upon cultural developments both within and outside of a country or region.

d. A number of factors -- climate, surface features, natural resources, accessibility, and history affect settlement and growth patterns.

1) Within certain limitations, moist areas tend to have a higher population density than dry areas. However, population distribution reflects man's values and his technology as well as physical features of an area.

e. Physical features of an area may set limitations upon man's activities, given a specific level of technology.

f. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, etc.

1) Forests can be used to obtain lumber and other timber products such as paper, turpentine, nuts, etc., depending upon the kinds of trees in the forest.

8. Specialization of individuals, regions, and countries makes for interdependence.

a. People in most communities depend upon people in other communities and countries for goods and services and for markets for their goods.

-ii-

-- climate, sur-
al resources, ac-
tory affect set-
atterns.

mitations, moist
e a higher popu-
an dry areas.
on distribution
lues and his tech-
physical features

an area may set
's activities,
el of technology.

roduced better
another because
s, transportation
sources, access
skills, etc.

ed to obtain lum-
ber products such
ine, nuts, etc.,
e kinds of trees

iduals, regions,
interdependence.

nities depend up-
ommunities and
and services and
r goods.

- b. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.
- c. An urban center based on only one commodity will thrive only so long as that commodity thrives.
- d. Diversification of production makes a company or a region less dependent upon price fluctuations for one product or upon the supply of specific resources.

9. Towns need means of shipping goods in and out; they are likely to grow up where transportation is good, particularly where different types of transportation meet.

- a. Improved transportation facilities make possible wider and bigger markets as well as greater and less costly access to resources.

- b. Cities which become big trading centers tend to grow up where there is a break in transportation and so where goods must be moved from one type of transportation to another or from one company's transportation facilities to those of another company.

10. Output is affected by the quality as well as by the quantity of resources; quality is affected by access as well as by fertility, richness, etc.

OBJECTIVES

- A. IS CURIOUS ABOUT SOCIAL DATA.

- S. Compares areas with known areas.

- S. Interprets map symbols in terms of map legend.
- S. Draws inferences from pictures.
- S. Sets up hypotheses.
- G. Towns need means of shipping goods in and out; they are likely to grow up where transportation is good, particularly where different types of transportation meet.
- G. Cities which become big trading centers tend to grow up where there is a break in transportation and so where goods must be moved from one type of transportation to another or from one company's transportation facilities to those of another company.

OUTLINE OF CONTENT

- I. Manuas is a town v
point for produce
 - A. The Amazon bas
est river syste

- 1. The Amazon b
than the bas

- 2. The Amazon R
and it has m
one of these
ties into th
ies meander
ward some 80
the tributar
which then f
Just before
plain throug
again. The
flows slowly
sea level.
so that sea-
Manaus; thos
can go as fa

-1-

OUTLINE OF CONTENT

SOCIAL DATA.

1. Manuas is a town which serves as a collecting point for produce in the Amazon basin.
 - A. The Amazon basin is a huge area on the greatest river system in the world.

th known areas.

1. The Amazon basin is huge -- much larger than the basin of the Mississippi.

mbols in terms of

2. The Amazon River is the largest in the world, and it has many tributaries. Manaus is on one of these tributaries just before it empties into the Amazon River. These tributaries meander through plains which extend westward some 800 miles. The plains narrow as the tributaries combine into one great river which then flows some 1,000 miles to the sea. Just before the river reaches the sea, the plain through which it flows broadens out again. The Amazon River is an old river which flows slowly. Manaus is only 100 feet above sea level. However, the river is deep enough so that sea-going vessels can go up way past Manaus; those requiring less than 14 feet can go as far as Iquitos in Peru.

From pictures.

e.

of shipping goods
re likely to grow
ation is good,
different types
meet.

e big trading
ow up where
n transporta-
goods must be
e of transpor-
or from one com-
lon facilities
r company.

11. Economic output is affected by the quality of labor or labor skills as well as by the quantity of labor.
 - a. Output is affected by the quantity of labor.
 - 1) The supply of labor is affected by the proportion of the population able and willing to work and by the number of hours they are willing to work.
12. Output can be increased by a more efficient combination of productive resources (by the way in which production is organized.)
13. New inventions and discoveries open up whole new fields of production or make it possible to increase production and/or reduce costs of productions.
14. Other things being equal, the price of a good rises when the demand for the goods exceeds the supply for the good.
15. Culture may change by a process of diffusion

5. Int leg
 6. Dra dif
 7. App gen
 8. Tes
- ATTITU

1. Is
2. App but
3. Is con ten lig

SKILLS

1. Sets up hypotheses.
2. Gains information by studying films.
3. Draws inferences from pictures.
4. Compares areas with known areas.

-iii-

ted by the qual-
ills as well as

the quantity

r is affected by
the population
o work and by the
ey are willing to

by a more effi-
ductive resources
duction is organ-

veries open up
uction or make
roduction
roductions.

, the price of a
nd for the goods
ne good.

process of dif-

dying films.

ctures.

n areas.

5. Interprets map symbols in terms of map legend.
6. Draws inferences from a comparison of different map patterns of the same area.
7. Applies previously-learned concepts and generalizations to new data.
8. Tests hypotheses against data.

ATTITUDES

1. Is curious about social data.
2. Appreciates and respects cultural contributions of other peoples.
3. Is sceptical of the finality of knowledge; considers generalizations and theories as tentative, always subject to change in the light of new evidence..

TEACHING PROCEDURES

1. Have a pupil locate the Amazon river basin on a map.

Give pupils a word association test in which they are to respond with the first three words they think of when you say a word. Then give them the name Amazon Basin. Discuss their responses.

2. Use transparencies to illustrate the size of the Amazon rain forest region as compared to an area of known size such as the United States.

3. Have a pupil make a graph comparing the length of the Amazon with that of other great rivers of the world. Then have pupils examine the map of the basin to note the number of tributaries which flow into the river. Locate Manaus on a tributary.

Have pupils look at a physical map of the basin and describe the physical features through which the tributaries and the river proper flows. Use a plastic overlay to point out floodplains.

Give pupils the elevation figure for Manaus. What does this figure show about the river? Show a picture of the Amazon below Manaus. Ask: What does this picture indicate about the area and about possibilities for transportation?

Read aloud quotations about the width and amount of water in the river. What does this indicate about the possibilities of shipping on the river? (Discuss depth and lack of rapid current, etc.) Show on a map the distance to which ocean shipping of different sizes can go up the river. Discuss: What possible advantages do you see in the location of Manaus?

MATERIALS

locate the Amazon river basin on a map.

Map of South America.

word association test in which they are to give the first three words they think of when you say "Amazon". Then give them the name Amazon Basin. Discuss responses.

Use cutouts to illustrate the size of the Amazon basin as compared to an area of known size such as a state.

Make a graph comparing the length of the Amazon with other great rivers of the world. Then use the map of the basin to note the number of tributaries which flow into the river. Locate the mouth.

Some figures are found in Bishop, Brazil, p. 30.
Physical map of Amazon basin.
Sheet of acetate to place over map. China marking pencil.
Price, Amazing Amazon, pp. 8, 10-16.

Use a physical map of the basin and describe physical features through which the tributaries flow. Use a plastic overlay to show drainage.

Find the elevation figure for Manaus. What does it tell about the river? Show a picture of the city of Manaus. Ask: What does this picture indicate about possibilities for transportation?

Discuss possibilities about the width and amount of water that does this indicate about the possibility of shipping on the river? (Discuss depth and draft, etc.) Show on a map the distances that different sizes of ships can go up the river. What possible advantages do you see in shipping to Manaus?

S. Applies previously-learned concepts and generalizations to new data.

S. Sets up hypotheses.

S. Tests hypotheses against data.

G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, prevailing winds, and physical features which block winds from certain directions.

G. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.

B. The Amount of precipitation is most plentiful from the equator to the tropics.

S. Applies previously-learned concepts and generalizations to new data.

S. Sets up hypotheses.

S. Tests hypotheses against data.

G. Rainfall is affected by distance from bodies of water, wind direction, temperature and physical features which block winds carrying moisture.

-3-

learned concepts
to new data.

- B. The Amazon Basin is marked by high humidity and precipitation but not by the great heat which most people expect, Temperatures vary little from one month to the next.

ainst data.

ected by the dis-
tor, elevation,
water bodies,
nd physical
k winds from

sonal differ-
in part by
quator; tem-
smaller near
rther away

learned concepts
to new data.

ainst data.

d by distance
r, wind direc-
nd physical
k winds car-

4. Have pupils note the latitude of the basin. Ask: On the basis of the location what do you think might be true about the temperature of this region? Do you see any other factors as shown on this physical map which would make you change your minds? (If necessary call attention to elevation, distance from ocean, wind directions, source of water in river, etc.)

Have pupils check their hypotheses against a temperature chart.

5. Compare temperature between the Amazon region and a mid-western United States city to dispel the misconception of extreme heat in that part of the world. Also quote Price on the effect of river water on the temperature.
6. Have pupils look at the physical map once more. Ask: What do you think might be true about precipitation in this region? Why? Where do you think most of the precipitation would come from? Have pupils check their ideas against a rainfall map, a map of wind systems, and a textbook.

-4-

altitude of the basin. Ask: On what do you think might be true of this region? Do you see anything on this physical map which comes to your minds? (If necessary call attention to distance from ocean, wind direction, river, etc.)

hypotheses against a temper-

Physical map of Brazil or South America.

"Student Almanac"

between the Amazon region and a mid-latitude part of the world. Also quote something about river water on the temperature.

"Student Almanac."

Price, The Amazing Amazon, p. 19.

physical map once more. Ask: What do you think might be true about precipitation in the Amazon? Do you think most of the precipitation comes from the Amazon? Have pupils check their physical map, a map of wind systems, and

May, Brazil, p. 20; Gartler and Hall, Understanding Brazil, p. 12; Goode's World Atlas.

rying moisture.

- G. Winds which have been warmed and have picked up moisture crossing large bodies of warm water tend to cool as they rise over mountains and so drop their water on the side of the mountain from which they come.

S. Sets up hypotheses.

S. Tests hypotheses against data.

G. Soil in a particular place is affected by the type of basic rock in the region, the climate, vegetation, erosion, wind, glaciers, and rivers which move soil, as well as by how man treats the soil.

G. Vegetation and what can be grown is affected in part by soil.

G. Differing crops need differing amounts of rainfall and differing temperatures and number of frost free days in order to grow.

C. Although course of are leach highly ac which rea new silt

warmed and
e crossing
ater tend to
mountains
r on the side
hich they

st data.

lace is af-
basic rock
mate, vegeta-
laciers, and
, as well as
soil.

n be grown
soil.

iffering
d differing
r of frost
grow.

C. Although there are many variations along the course of the Amazon, in general the soils are leached of organic substances and are highly acid. However, the flood-plains, which reach some width near the coast get new silt deposits each year.

Read aloud quotations about the rainstorms of the region, about the humidity, etc.

Lindop
Americ

7. Ask: Suppose you were a farmer. What would be your chances of making a good living in this basin? Why? Let pupils set up hypotheses about agricultural possibilities, including the soil.

See ba
The Am

Read aloud quotations or give pupils information needed to check their hypotheses.

-6-

rainstorms of the re-

Lindcp, Understanding Latin America, p. 415.

What would be your
on this basin? Why?
at agricultural possi-

See background paper. Price,
The Amazing Amazon, p. 19.

oils information needed

S. Gains information by studying films.

G. Vegetation is affected by temperature, precipitation, and soil.

G. People in most societies depend on people in other communities and countries for goods and services and for markets for their goods.

G. Vegetation is affected by temperature, precipitation, and soil.

G. People in most societies depend on people in other communities and countries for goods and services and for markets for their goods.

D. The basin
the uplan
Little su
in the tr
8,000 spe

E. There may
minerals,
has been

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

11. We look at M
guese. Many
we will focu

A. The Jiva
ing soci

B. The Jiva
given th
were nec

-7-

ing films.

tempera-
oil.

epend on
s and
rvices
goods.

tempera-
oil.

epend on
s and
rvices
goods.

ronment
alues,
technol-

D. The basin is covered with huge trees except in the upland areas where there are savanna regions. Little sunlight filters through to the ground in the tropical rain forest. There are over 8,000 species of trees.

E. There may be considerable oil and there are many minerals, but so far the only big development has been of manganese on the lower Amazon.

II. We look at Manaus before the coming of the Portuguese. Many Indian groups lived in the area, but we will focus upon one example, the Jivaro.

A. The Jivaro were primarily a hunting and gathering society.

B. The Jivaro practiced some shifting agriculture; given this level of technology, such practices were necessary because of the soil.

8. Show photos of the rain forest in the basin or show a film on the Amazon basin. Ask: Why do you think there are such dense forests? How do you think these resources might be used? Quote Price on the importance of some of the tree oils to the U.S.

9. Quote Thomas E. Dewey on the importance of Manganese to the free World in wartime. Read aloud Price's comments on its importance and show the location of the mine in Brazil. Have a pupil report on the uses of manganese.

Tell the class that Americans are exploring for oil in the region. Why do they think they might find it here? Have a pupil investigate the way in which oil is formed and report to the class. He might assume the role of an adviser to the American oil company and explain why he thinks it might want to spend money exploring for oil in this region.

10. Point out that there were many groups of Indians living in the Amazon basin before white men came. However, the class will focus upon one group which was fairly typical of how people lived in the area.

Prepare a chart to show how the Jivaro lived in the Manus area prior to the coming of the white man. Use titles to illustrate how the people lived. Then have pupils read brief descriptions of shifting agriculture. Discuss Do you think this type of agriculture was poorly or well-

-8-

forest in the basin or show a
n. Ask: Why do you think there
How do you think these resources
Price on the importance of some of
S.

Photos of rain forest. Or film
on river basin. Price, The
Amazing Amazon, p. 4; May, Brazil,
pp. 19, 49.

n the importance of Manganese to
me. Read aloud Price's comments
how the location of the mine in
report on the uses of manganese.

Price, The Amazing Amazon, pp.
2-3; Gattler and Hall, Under-
standing Brazil, p. 56.

ricans are exploring for oil in
y think they might find it here?
e the way in which oil is formed
He might assume the role of an
oil company and explain why he
spend money exploring for oil in

re many groups of Indians living
ore white men came. However, the
ne group which was fairly typical
the area.

how the Jivaro lived in the Man-
oming of the white man. Use titles
people lived. Then have pupils
of shifting agriculture. Discuss:
f agriculture was poorly or well-

For descriptions of shifting ag-
riculture, see Lindop, Under-
standing Lat. Am., p. 418; Kohn
and Drummond, World Today, p. 257.

- C. The sh
to new
- D. The Ji
in the
white
- E. These
to use
men, i
ing ma
- A. APPRECIATES AND RESPECTS CULTURAL CONTRIBUTIONS OF OTHER PEOPLES.
- G. Culture may change by a process of diffusion.
- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
- G. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.
- III. We look a
- A. By 187
rubber
aus gr
rubber
city.
- 1. Man
ing
- 2. Mon
nes
- 3. Man
had
cit
- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
- B. Manaus
until

-9-

- C. The shifting agriculture required frequent moves to new villages.
- D. The Jivaros were fierce fighters; their presence in the basin discouraged early exploration and white settlement.
- E. These and other Indians in the Basin had learned to use many of the plants for medicines; white men, including American doctors, are now borrowing many of these discoveries.

III. We look at Manaus in the period 1875-1910.

- A. By 1875 Brazil was the world's chief exporter of rubber. Due to its strategic river position, Manaus grew to be a major concentration point for rubber shipments. By 1910 it was a prosperous city.
 - 1. Many large buildings were built here, including the famous Manaus Opera House.
 - 2. Money was squandered by the exploitive businessmen at a fantastic rate.
 - 3. Manaus became a prosperous urban center. It had electricity before some large European cities did.
- B. Manaus existed earlier but did not grow much until the demand for rubber grew.

suited for the area? Why?

Describe briefly the characteristics of the tribe as fought.
Ask: If you had been the first white men in Portugal, what would have been your feelings about exploring and settling this region where the Jivaros lived?

11. Read aloud sections from Price on the Indians' use of plants for medicines. Point out that probably these discoveries go back long before white men arrived.
12. Read aloud a description of Manaus in the period from 1875-1910, and point out the importance of rubber to Manaus. Ask: Why would Manaus benefit by a sudden interest in the production of rubber along the upper Amazon? Look again at a map showing the location of Manaus as the class discusses this question.
13. Now put a short timeline on the chalkboard or on the bulletin board to show what had happened in this area prior to the coming of the rubber boom. It should show when the Portuguese first came to Brazil, when Manaus was founded,

-10-

teristics of the tribe as fighters.
first white men in Portugal, what
gs about exploring and settling
os lived?

ice on the Indians' use of plants Price, The Amazing Amazon,
hat probably these discoveries ch. 12.
en arrived.

Manaus in the period from 1875- Price, The Amazing Amazon,
ortance of rubber to Manaus. Ask: pp. 209-210, 212-214.
a sudden interest in the produc-
per Amazon? Look again at a map
aus as the class discusses this

the chalkboard or on the bul-
d happened in this area prior
boom. It should show when the
razil, when Manaus was founded,

- G. The significance of location depends upon cultural developments both within and outside of a country or region.
 - S. Sets up hypotheses.
 - G. Forests can be used to obtain lumber and other timber products.

 - G. New inventions and discoveries open up whole new fields of production.

 - G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

 - G. Other things being equal, the price of a good rises when the demand for the good exceeds the supply for the good.

 - G. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.
- 1. For about gained zon Bas for exp
 - 2. Manaus the late mote se ernment
 - 3. The Ama from wh ber. H consid mand un

 - a. In 1 of v with

 - b. The ching after

 - c. At t grew sole
 - 4. The dem in the land si wealthy

1. For about three hundred years after Portugal gained control of Brazil, Manaus and the Amazon Basin were left almost untouched except for expeditions for gold.
2. Manaus was established by the Portuguese in the late 17th century, but it remained a remote settlement and served mainly as a government outpost until the early 1800's.
3. The Amazon basin contained the heavea tree from which latex can be taken for making rubber. However, this possible resource was not considered much of a resource or in much demand until the early 1800's.
 - a. In 1840 Goodyear discovered the process of vulcanizing rubber so that it would withstand extremes of heat.
 - b. The industrial revolution introduced machines which needed rubber; this need grew after the invention of the auto.
 - c. At the time that the demand for rubber grew, the Amazon basin was almost the sole place where the rubber trees grew.
4. The demand for rubber led to a land boom in the area around Manaus. People bought land sight unseen, in the hopes of becoming wealthy from the production of rubber.

and when rubber production began around Manaus. Point out that the trees from which rubber is made had been growing in this area all of the time. Ask: Why do you think so many years passed before production became important here?

14. Have a pupil give a report on Goodyear's discovery of vulcanization. He should explain why this discovery was important. Ask: What effect would this discovery have upon the demand for rubber? Why?
15. On the timeline, indicate some of the dates connected with the Industrial Revolution. Point out some of the machines which were discovered which needed rubber. Ask: What effect would the invention of many new types of machines, including the auto, have upon the demand for rubber?
16. Point out to the class that the only known trees from which rubber could be made at the time were found in the Amazon basin. Ask: Suppose you had been a businessman during this period. Why might you have tried to buy land around Manaus? Now tell pupils about how people bought land sight unseen. Why? What effect would this rush for land have upon Manaus?

- S. Sets up hypotheses.
- S. Tests hypotheses against data.
- G. Physical features of an area may set limitations upon man's activities, given a specific level of technology.

- S. Sets up hypotheses.
- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

- S. Sets up hypotheses.
- G. Specialization of individuals, regions, and countries makes for interdependence.

. The popul

- 5. Railroads but were tinued to

IV. We look at Mana

- A. Both the bas importance a

- B. By 1923 Braz cent of the in the Amazo another part duce rubber

-13-

4. The population of Manaus increased greatly.

5. Railroads were begun from the coast to Manaus but were never completed; transportation continued to be by river steamer.

against data.

of an area
s upon man's
a specific
y.

ical environ-
his cultural
ns, and level

IV. We look at Manaus and the Amazon basin in 1923.

A. Both the basin and Manaus had declined in importance and in population.

B. By 1923 Brazil produced only about 8 per cent of the world's rubber. The rubber boom in the Amazon Basin had collapsed, because another part of the world had begun to produce rubber more efficiently.

6.
Individuals,
tries makes
ce.

17. Tell the class that people began to build railroads from the coast inland to Manaus. Why might they wish to do so? Now tell them that the railroads were never completed. Ask: Why do you think they were never completed? Read aloud a description of the problems and cost of trying to build the railroad.

Price, The Amazing Amazon,
Ch. 14.

Ask: What other kinds of land transportation might be built? Would it be any easier to build such transportation? What would this mean about the kind of transport which the people of Manaus would have to use?

18. Give pupils a brief summary description of Manaus in 1923. Point out that ocean liners no longer sailed up to Manaus, that the population had declined drastically, that the opera house had closed, that many rich people had lost all of their money, etc. Also point out that the Indian population in the Amazon region had declined from about 2 million (when the white men arrived) to less than 300,000 by this time. Have pupils suggest possible reasons for this decline.
19. Give pupils figures on Brazil's share of the world rubber production in 1923. Ask: What had happened? Why do you think it had dropped so much? Let pupils set up possible hypotheses for testing.

G. An urban center based on only one commodity will thrive only so long as that commodity thrives.

G. The significance of location depends upon cultural developments both within and outside of a country or region.

G. A number of factors--climate, surface features, natural resources, accessibility, and history affect settlement and growth patterns.

G. The supply of labor is affected by the proportion of the population able and willing to work and by the number of hours they are willing to work.

G. Output can be increased by a more efficient combination of productive resources (by the way in which production is organized.)

G. Man changes the character of the earth.

1. In 1876 seedling the Malish plant

2. There was management Amazon,

a. Work transportation tracks and were

1) T

2) L

3) T
s

4) T
t

ed on only
thrive only
modity

location
al develop-
nd outside
on.

-climate,
atural re-
ty, and his-
ent and growth

is affected by
e population
work and by
they are will-

sed by a more
n of produc-
he way in
organized.)

acter of the

1. In 1876 an Englishman smuggled out rubber seedlings which were eventually taken to the Malay peninsula and planted on British plantations.

2. There was no concern for scientific management of the rubber plantations in the Amazon, as there was in Southeast Asia.

a. Workers were recruited in Manaus and transported to the owner's forest tract. There they collected the latex and made it into rubber balls which were picked up by the owner's ship.

1) Trees were cut at will.

2) Land was not prepared for new trees.

3) There was little care taken to insure crop longevity.

4) There was little attempt to improve the trees through experimentation.

20. Assign a research project on Henry Wickam and the growth of the rubber plantations in Sumatra and Malaya. At this point the pupil should report only on how Wickam got the trees and finally how plantations got started in Malaya and Sumatra. Ask: Why did Wickam and others think that the trees would grow there? (Have pupils examine climatic maps to answer this question.) Also ask: What effect do you think this move to start rubber plantations here would have upon the Amazon basin and Manaus? P
p
21. Have pupils read brief descriptions of how rubber was made from the trees in Brazil. (Also show picture of the trees.) Now read aloud a description of how the early owners of the land around Manaus got their rubber. Discuss: How efficient do you think this system would be for growing rubber? What problems might arise? L
Am
Pr
pp
Ma
Wh
Ca
pp
La

ect on Henry Wickam and the growth
ons in Sumatra and Malaya. At this
report only on how Wickam got the
plantations got started in Malaya
y did Wickam and others think that
ere? (Have pupils examine climatic
estion.) Also ask: What effect do
start rubber plantations here would
asin and Manaus?

Price, The Amazing Amazon,
p. 222.

descriptions of how rubber was
Brazil. (Also show picture of the
a description of how the early
nd Manaus got their rubber. Dis-
you think this system would be
at problems might arise?

Lindop, Understanding Latin
America, p. 419.
Price, The Amazing Amazon,
pp. 208-209, 214-216.
May, Brazil, pp. 54-57.
Whittemore, et. al, U. S.,
Canada, Latin America,
pp. 130-131 of section on
Latin America.

G. Output can be increased by a more efficient combination of productive resources (by the way in which production is organized.)

b.

S. Sets up hypotheses.

3. The find area other tre

S. Tests hypotheses against data.

G. Population is distributed unevenly over the earth's surface; many of the land areas are thinly populated.

a.

G. A number of factors -- climate, surface features, natural resources, accessibility, and history -- affect settlement patterns.

b.

G. Output is affected by the quantity of labor.

c.

d.

G. Some things can be produced better in one place than in another because of climate, resources, access, people's skills, etc.

4. Plan cent cent of v

- e
- b. When the rubber tree was taken to the Malay peninsula, the trees were planted in orderly rows and the managers of plantations used scientific management to improve the trees, the collection of latex, the curing of rubber, etc. As a result, trees in Malaya began to yield 10 to 17 pounds of rubber per tree as against 3 pounds per tree in Brazil.
3. The chief problem in the Amazon basin was to find large numbers of cheap laborers; this area could not compete with some of the other tropical areas to which the rubber tree was taken.
- a. The population density in Southeast Asia was already higher than in the Amazon basin.
 - b. Better employee provisions were made for the workers in S.E. Asia.
 - c. Superior plantation design meant that fewer people were needed to work a given number of trees in S.E. Asia.
 - d. The treatment of the Amazon workers resulted in the death of many Indians.
4. Plantations in Southeast Asia produced 10 per cent of the world's rubber by 1910, 60 per cent by 1914, and 93% by 1924. Brazil's share of world production dropped to 7% by 1924.
- ly
of
ted.
sur-
, ac-
ct
ty
er
cause
eo-

22. Now have the pupil who investigated Wickam and the rubber plantations of Malaya and Sumatra continue his report. He should tell the class about how the plantations differed from those in the Amazon basin. Afterwards discuss: What advantage do you think the plantations in Southeast Asia would have over those in the Amazon area?

Illustrate with graphs or tables the advantage of greater rubber productivity per unit in S.E. Asia.

23. Have students consult population maps of each rubber region (the Amazon and S.E. Asia). If possible use maps showing density in the period of the early 1900's. If not, use modern maps and indicate that population density was slightly higher then in the basin than in 1923 but that it has risen again since 1923.

Point out that one of the problems in producing rubber in the Amazon basin was too few workers. Why might there have been fewer workers in the Amazon basin than in S.E. Asia? Get pupils to set up hypotheses. Ask: What did you learn about the way Indians were treated during the rubber boom? How might this have affected the number of people living in the region around Manaus? Now read aloud or summarize explanations of the relatively small number of workers and the decline in population.

24. Have a pupil prepare a graph to show the increase in the proportion of world rubber grown in Southeast Asia from 1910 to 1924. Have the class summarize reasons for the changes.

G. Output can be increased by a more efficient combination of productive resources (by the way in which production is organized.)

S. Sets up hypotheses.

5. As a result of the boom, world existence

a. Follow the way the Americans are able to

b. Some world agricultural products were so voted in the region.

G. Man uses his physical environment in terms of his cultural values, perceptions, and levels of technology.

V. We look at Manaus

A. Manaus is a city with public transport, hospitals, schools, and commercial centers

1. Manaus' population has a population density of very low.

G. Within certain limitations, moist areas tend to have a higher population density than dry areas. However, population distribution re-

-19-

y a more
productive
which pro-

5. As a result of the collapse of the rubber boom, workers were left without a means of existence, and millionaires became paupers.
 - a. Following the collapse of rubber, many of the workers drifted to the cities along the Amazon; however, few jobs were available in these towns.
 - b. Some workers settled on land to attempt agriculture, but as late as 1920 there were scarcely a hundred square miles devoted to this work in all the Amazon region.

ironment
values,
of tech-

V. We look at Manaus today.

- A. Manaus is a modern city with good sanitation, public transportation facilities, electricity, hospitals, schools, factories, etc. and is a commercial center.
 1. Manaus' population is growing again; it now has a population of over 175,000. The population of the surrounding region remains very low.

s, moist
er popula-
as. How-
tion re-

25. Ask: What do you think the workers who had been gathering, curing, and collecting the rubber would do once the rubber production declined rapidly in the Amazon basin? If pupils suggest that they might move to Manaus to work, ask what kinds of jobs they might get there. If pupils cannot think of other possibilities, ask: How did Indians make a living earlier before the white man came? Could they go back to living in the same way? Suggest that it might be important to find out how people use this basin today.

26. Project pictures of Manaus today. Have pupils try to figure out as much about the city as they can from these pictures. Then read aloud a description or descriptions of Manaus today.

Ask: How does this Manaus compare with that of 1910? of 1923? How has transportation changed? Point out that Manaus has no real road transportation leading to other places, although two roads have been started. How can pupils account for this fact?

27. Have pupils examine once more a population density map of the basin and of South America as a whole. How does the population in the basin compare with that in other parts of Brazil? South America? Why do you think the

the workers who had been gathering, the rubber would do once the rubber rapidly in the Amazon basin? If pupils might move to Manaus to work, ask pupils how they might get there. If pupils cannot find routes, ask: How did Indians make a trail? How did the white man come? Could they go the same way? Suggest that it might be interesting to see how people use this basin today.

Manaus today. Have pupils try to find the city as they can from these pictures and give a description or descriptions of

Manaus compare with that of 1910? of transportation changed? Point out that roads and transportation leading to other roads have been started. How can pupils find out?

Give pupils more a population density map of South America as a whole. How does the Amazon basin compare with that in other parts of South America? Why do you think the

Photos in Lindop, Understanding Latin America, p. 419; Pam Am. Union, Amazon, p. 12; Nat'l. Geog., Sep't., 1962, pp. 328-331. Descriptions in Price, The Amazing Amazon, p. 250.

Population density map of Brazil and/or South America. (E.g. May, Brazil, p. 31 or Gartler and Hall, Understanding Brazil, p. 44.)

flects man's values and his technology as well as physical features of an area.

- S. Sets up hypotheses.
- G. Improved transportation facilities make possible wider and bigger markets as well as greater and less costly access to resources.

2. Manaus is routes.

a. Manaus connecting however

b. Manaus stimulates mains fa is much

- S. Interprets map symbols in terms of map legend.

Manaus lous par It is pa open up

- S. Sets up hypotheses.

- S. Test hypotheses against data.

- G. Improved transportation facilities make possible wider and bigger markets as well as greater and less costly access to resources.

- S. Draws inferences from a comparison of different map patterns of the same area.

3. Manaus is a upper Amazon where.

- S. Draws inferences from pictures.

-21-

and his tech-
ysical features

ion facilities
and bigger mar-
ter and less
ources.

ls in terms

nst data.

ion facilities
and bigger mar-
ter and less
ources.

n a comparison
terns of the

n pictures.

2. Manaus is situated on good river and air routes.

a. Manaus still has no good road system connecting it with other parts of Brazil; however two roads have been started.

b. Manaus has built huge floating docks to stimulate river traffic; this traffic remains fairly small, but it is growing and is much larger than in 1923.

Manaus is a hub for air traffic into various parts of Brazil and other countries. It is part of a big government effort to open up more parts of Brazil by plane.

3. Manaus is a trade center where products of the upper Amazon are collected and shipped elsewhere.

population density may be so low? Remind pupils of the generalization they drew during the overview of the U.S. about the relationship between population densities and moistures in areas. Do they need to modify this generalization? How?

28. Review with pupils the extent to which ships can travel up the Amazon river. Ask: Why do they think there may be little traffic, even though there is more now than in 1923? Ask pupils to note the floating docks in the picture of Manaus. Why might the people build such docks? Read aloud a description of them in explanation. (Point out that they were built during the rubber boom.)

29. Project an airline map of Brazil. Ask: What do you notice about Manaus on this map? Why would the government try to develop air travel across the Amazon basin? Why would they use Manaus as a central hub of such traffic?

Perhaps read aloud brief descriptions of ways in which the government is building airstrips and of ways in which small planes are used to carry goods and travellers.

30. Project a series of maps from Deasey showing land use in the Amazon basin. Ask the class to consider the location of Manaus. Is it a good one to serve as a trading center for the valley now that the rubber boom has collapsed? Why or why not?

ty may be so low? Remind pupils of the map they drew during the overview of the U.S. relationship between population densities and transportation. Do they need to modify this general-

the extent to which ships can travel over the river. Ask: Why do they think there may be floating docks, even though there is more now than in the past? Note the floating docks in the picture. Why might the people build such docks? Give a description of them in explanation. (Point to the docks built during the rubber boom.)

Pan American Union, Amazon, p. 12.
Price, The Amazing Amazon, p. 208.
Gartler and Hall, Understanding Brazil, p. 8.

the map of Brazil. Ask: What do you see on this map? Why would the government support air travel across the Amazon basin? Why is Manaus as a central hub of such traf-

Webb, Brazil, p. 74.
Price, The Amazing Amazon, pp. 22, 269 ff.
May, Brazil, p. 110.

and brief descriptions of ways in which the government is building airstrips and of ways in which the government is used to carry goods and travellers.

of maps from Deasey showing land use in the Amazon basin. Ask the class to consider the location of a good one to serve as a trading center in the Amazon basin that the rubber boom has collapsed?

Deasey, et. al., The World's Nations, p. 298.

- S. Generalizes from data. a.
- S. Sets up hypotheses.

- G. Diversification of production makes a company or a region less dependent upon price fluctuations for one product or upon the supply of specific resources. b.
- G. Forests can be used to obtain lumber and other timber products such as paper, turpentine, nuts, etc., depending upon the kinds of trees in the forest.

- S. Sets up hypotheses. c.
- G. Forests can be used to obtain lumber and other timber products

a. Brazil now produces only 2 percent of the world's rubber; however, this rubber has a steady demand because of its special qualities.

b. The most valuable commodity today in the Amazon basin is the Brazil nut; as in the case of rubber, it is merely collected and not cultivated.

1) Workers are sent into the forests to collect nuts which have fallen.

2) Nuts are shipped out via the rivers just as rubber was.

3) Today Brazil is the world's largest producer of Brazil nuts.

4) Even nut production is threatened, as plantations in Malaysia begin experimenting with the cultivation of this product.

c. Tree products are shipped abroad for other kinds of oils needed for a variety of purposes.

Have pupils look at a picture of boats taking produce to Manaus. Ask: What products are being collected and taken to Manaus?

31. Give pupils the figure for the present proportion of world rubber production which comes from Brazil. What has happened to this proportion since 1923? How might the people in this area (In Manaus and surrounding area) live if rubber production is not greater? Let pupils set up hypotheses to test.
32. Read aloud excerpts from Price's description of Araujo's operations near Manaus. How has he diversified his production activities? (Be sure pupils understand the meaning of the term.)
33. Summarize briefly the way in which Brazil nuts are being harvested in the Amazon basin. Ask pupils to compare this method with the way rubber was harvested. What problems might arise? Now tell them about some of the
34. Ask: How might a landowner who has many trees make a living besides cutting them down for lumber and using nuts for food? Let pupils make some guesses. Perhaps

-24-

a picture of boats taking produce
what products are being collected and

Bishop, Brazil, p. 68.

sure for the present proportion of
tion which comes from Brazil. What
s proportion since 1923? How might
area (In Manaus and surrounding areas)
uction is not greater? Let pupils
o test.

from Price's description of Araujo's
aus. How has he diversified his pro-
(Be sure pupils understand the mean-

Price, The Amazing Amazon,
ch. 19.

the way in which Brazil nuts are being
amazon basin. Ask pupils to compare
the way rubber was harvested. What
e? Now tell them about some of them.

andowner who has many trees make a
ting them down for lumber and using
t pupils make some guesses. Perhaps

Price, The Amazing Amazon
pp. 282-284.
Bishop, Brazil, pp. 74-75.

such as paper, turpentine, nuts, etc., depending upon the kind of trees in the forest.

d. Tree p
where

G. People in most communities depend upon people in other communities and countries for goods and services and for markets for their goods.

S. Sets up hypotheses.

4. Manaus had
well as t

S. Tests hypotheses against data.

a. It now
oil fro
Peru.

G. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, etc.

b. It has
kinds o
making

S. Gains information by studying films.

B. Indians still
the river; th
riculture and
products.

A. IS CURIOUS ABOUT SOCIAL DATA.

G. Phenomena are distributed unequally over the earth's surface, resulting in great diversity or variability from one place to another. No two places are exactly alike.

-25-

entine, nuts,
on the kind of
t.

munities depend
er communities
goods and ser-
ets for their

d. Tree products are also shipped else-
where to be made into medicines.

gainst data.

produced bet-
han in another
, resources,
tes, access to
to markets,
tc.

4. Manaus had developed some industries as
well as trade functions.

a. It now has an oil refinery to process
oil from the Amazon basin section of
Peru.

b. It has processing plants for various
kinds of tree oils and nuts and for
making wood fuels and plywood.

by studying films.

B. Indians still live in small villages along
the river; they engage in some shifting ag-
riculture and in the collection of forest
products.

OCIAL DATA.

tributed unequally
urface, resulting
or variability
another. No two
alike.

ask them if their mothers buy any food made from tree products. Now quote or summarize some author's description of the rich varieties of tree products in the Amazon basin and the uses to which they can be put.

35. Ask pupils to think back to the descriptions of Araujo's operations. What was he doing besides collecting and selling raw products? What other kinds of processing plants have they learned about? What kinds might be set up in or close to Manaus? After pupils have suggested some, give them a list.

Now tell the class that Manaus also has an oil refinery. Ask: Where would it get the oil? Have pupils examine a map of oil fields in South America to try to figure out. Then read aloud the explanation from the Pan American Union pamphlet.

36. Show the filmstrip, Geography of the Amazon, to give students an overall picture of the region today.
37. Have a group prepare a report on their "journey" up the Amazon from the delta to Iquitos. Report types of people encountered and activities noted on the trip.

Or have pupils read about life in an Indian village in the Amazon today. Discuss.

-26-

any food made from tree products
see some author's description
products in the Amazon basin
can be put.

May, Brazil, p. 64.

the descriptions of Araujo's
besides collecting and selling
kinds of processing plants
at kinds might be set up in
oil fields have suggested some, give

For a map of oil fields in
South America see Kohn and
Drummond, World Today, p.
272. For explanation, see
Pam Am. Union, Amazon, p.
13.

also has an oil refinery.
oil? Have pupils examine
America to try to figure out
on from the Pan American

of the Amazon, to give stu-
the region today.

Filmstrip: Geography of the
Amazon.

on their "journey" up the
tribes. Report types of people
noted on the trip.

life in an Indian village in

Lindop, Understanding Latin
America, p. 418.

S. Sets up hypotheses.

S. Tests hypotheses against data.

G. Soil in a particular place is affected in part by rivers which move soil and deposit it in the area.

S. Sets up hypotheses.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

G. New inventions and discoveries open up whole new fields of production or make it possible to increase production and/or reduce costs of production.

G. Output can be increased by a more efficient combination of productive resources (by the way in which production is organized.)

C. Some white as small la as well as

D. Several new the rubber have had so

1. In 1927 over 2½ east of ber. Th were att scattered be immun hilly and eroded. in 1930.

2. The Ford the Amaz labor.

- st data.
- place is af-
ers which move
n the area.
- C. Some white people have settled along the river as small landowners engaged in farming trees as well as other crops.

- environment
ral values,
l of technol-
- D. Several new attempts by Americans to develop the rubber industry failed, but their efforts have had some lasting effects on the region.

- discoveries open
f production
o increase pro-
costs of pro-
- ed by a more
of productive
y in which pro-
1. In 1927 the Ford Motor Company purchased over 2½ million acres about 400 miles southeast of Manaus in order to grow its own rubber. They planted trees, but these trees were attacked by disease. Individual trees scattered among many other varieties tend to be immune to such diseases. The area was hilly and not good for machines, and the soil eroded. The company gave up the plantation in 1930.
 2. The Ford company moved to a new location in the Amazon basin but could not get needed labor. They experimented with bringing in

38. As a side-light--students may be interested in working on a project about the plant and animal life of the Amazon region, or on some of the tribal cultures living there. The Amazon is a fascinating place in the minds of young people. Every effort should be made to bring out the color of the region as well as the main concepts chosen.
39. A bulletin board display of a map showing the Amazon and the regions of tribal groups, towns, and commercial activity would point out the importance of the river to all aspects of life in the area.
40. Read aloud a brief description of the farming activities of a pioneer in the region close to the river near Itacoatiara. Ask: Why is this man able to grow such good crops on this soil? Why isn't his soil leached as is so much of the soil in the Basin? If necessary, read aloud descriptions of flooding along river and then ask this question again.
41. Tell the pupils that the Ford Company made two efforts to develop profitable rubber plantations in Brazil during the period from 1927 to 1945. Ask: Why do you think this company might want to set up rubber plantations? If you had been the Ford managers, where would you have looked to get ideas about how to make these plantations profitable?

Read aloud or tell pupils about the two Ford ventures. Afterwards discuss: Why couldn't Ford develop profitable plantations in the Amazon basin when such plantations are profitable in Southeast Asia?

ents may be interested in working on
plant and animal life of the Amazon
the tribal cultures living there.
nating place in the minds of young
should be made to bring out the
s well as the main concepts chosen.

lay of a map showing the Amazon and
groups, towns, and commercial ac-
t the importance of the river to all
e area.

scription of the farming activities
region close to the river near Itacoa-
this man able to grow such good
Why isn't his soil leached as is so
ne Basin? If necessary, read aloud
ing along river and then ask this

Price, The Amazing Amazon,
pp. 266-267.
Floods are described in
Price, pp. 13-14.

the Ford Company made two efforts
rubber plantations in Brazil during
to 1945. Ask: Why do you think
nt to set up rubber plantations? If
managers, where would you have
out how to make these plantations

Price, The Amazing Amazon,
Ch. 16.

pils about the two Ford ventures.
Why couldn't Ford develop profitable
amazon basin when such plantations are
st Asia?

G. Economic output is affected by the quality of labor or labor skills as well as by the quantity of labor.

imp
wou
tre
abl
ber
dur
fro
the
aft

3. Dur
wit
whi
cre
the

4. Alt
for
som
cha
the
pro

a.

b.

affected by the
labor skills
quantity of labor.

improved trees from the East Indies, which would produce more rubber than the native trees. However, these new trees proved unable to resist some of the diseases of rubber trees. Ford continued the plantation during World War II, when rubber was cut off from the East Indies. However, he turned the land over to the Brazillian government after the war.

3. During the war, the U.S. government cooperated with Brazil in many investigations of ways in which wild rubber production could be increased. Their efforts had little success at the time.
4. Although the Ford Co. and U.S. government efforts did not prove successful, they did have some lasting effects and have stimulated changes which may bring about growth both in the rubber production and in other kinds of production in the basin
 - a. The Ford Co. and the U.S. government began and encouraged further the development of sanitary and other health measures; as health conditions improve, more people will be willing to go into the area to settle.
 - b. Ford experimented with bringing in improved varieties of rubber trees from the East Indies; although they were not resistant to diseases in Brazil, further experiments have shown that grafting with native stock can produce a disease-resistant as well as a better-producing tree.

42. Tell the class about the U.S. efforts to increase wild rubber production. Ask: Why do you think the U.S. spent so much money on this? Why do you think the project failed?
43. Have a pupil find out how the Brazillian government has followed up on some of the developments begun by Ford and suggested by U.S. workers during World War II. He should report on health activities and on new developments at rubber plantations. Discuss: How would such health activities affect this region? Why might some of the rubber developments bring about increased production and profits? Tell the class briefly about some of the qualities of Brazillian rubber which leads to a small but steady demand.

-30-

the U.S. efforts to increase wild
k: Why do you think the U.S. spent
Why do you think the project

See Price, The Amazing Amazon,
p. 228.

how the Brazillian government has
the developments begun by Ford and
ers during World War II. He should
ities and on new developments at
iscuss: How would such health ac-
egion? Why might some of the rub-
about increased production and
ss briefly about some of the quat-
bber which leads to a small but

Price, The Amazing Amazon,
pp. 230-236.

- S. Sets up hypotheses.
- G. Output is affected by the quality as well as by the quantity of resources; quality is affected by access as well as by fertility, richness, etc.
- S. Applies previously-learned concepts and generalizations to new data.
- G. Types of agriculture in a region depend upon man's cultural values, perceptions and level of technology as well as upon climate, soils, and topography.
- G. New inventions and discoveries open up whole new fields of production or make it possible to increase production and/or reduce costs of production.
- G. Culture may change by a process of diffusion.

- D. The Braz
experime
ing proc
are intr
working
be easie
to devel
1. They
and r
make
2. They
mills
able
3. The g
devel
along
grown
4. The g
who h
which
Jute
area
it.

-31-

D. The Brazillian government now has an agency to experiment with scientific improvement of existing products and the development of others. They are introducing some crops from other countries, working out ways of developing forests which will be easier to lumber, and encouraging new settlers to develop some of the products.

1. They are encouraging the cutting of trees and replanting with one variety of tree to make lumbering this tree worthwhile.
2. They are encouraging landowners to set up pulp mills where trees are too mixed for profitable cutting for lumber.

3. The government has encouraged some people to develop a rice economy in the flood plain along the river; a new town of Gurupi has grown up there.

4. The government brought in a Japanese expert who helped develop a new strain of jute plant which would grow well in the Amazon valley. Jute has now become an important crop in the area and factories have grown up to process it.

44. Ask: What problems did the wild rubber collector because of the way trees were scattered? Remind of the great variety of trees within any square m. Ask: Why would this create a problem for people to cut trees for lumber? If such a problem could come, what other disadvantages would the Amazon be as a lumbering region? What advantages would it (Discuss problems of transportation, location as to markets, rapid growth of trees, etc.) Read all tations about the rapid growth of trees.

45. Ask pupils if they know what pulp is? what plywood. Make sure that they understand these terms. Now. Why might it be easier for a man who owns trees a the Amazon to produce pulp and plywood than speci types of lumber for the market?

Discuss: Suppose you owned a large area of trees the river and had cut them all down for pulp to ma wood. How could you now use your land to get more able lumber off of it? Quote Price on what is be

46. Have a pupil investigate ways in which the governn trying to bring about greater diversification of c and the introduction of new crops and improved agt ural methods. He should report to the class. D possible effects upon the Basin.

-32-

he wild rubber collectors have
were scattered? Remind pupils
trees within any square mile.
te a problem for people wishing
If such a problem could be over-
tages would the Amazon basin have
hat advantages would it have?
sportation, location as related
of trees, etc.) Read aloud quo-
rowth of trees.

Price, The Amazing Amazon,
pp. 280-281.

hat pulp is? what plywood is?
stand these terms. Now ask:
r a man who owns trees along
p and plywood than specialized
arket?

ed a large area of trees along
m all down for pulp to make ply-
use your land to get more valu-
ote Price on what is being done.

See Price, The Amazing Amazon,
pp. 284-85.

ways in which the government is
ater diversification of crops
ew crops and improved agricul-
report to the class. Discuss
Basin.

Price, The Amazing Amazon,
pp. 238-39.

- S. Interprets symbols on maps.
- G. Man uses his environment in terms of his cultural values, perceptions, and level of technology.

E. Although the a known mineral developed on t now the larges in the Western eral deposits the Manaus area ly as yet.

- A. IS SCEPTICAL OF THE FINALITY OF KNOWLEDGE; CONSIDERS GENERALIZATIONS AND THEORIES AS TENTATIVE, ALWAYS SUBJECT TO CHANGE IN THE LIGHT OF NEW EVIDENCE.

-33-

ps.
in terms
perceptions,

- E. Although the area around Manaus does not have known mineral deposits, manganese mining has developed on the lower Amazon. This mine is now the largest single producer of manganese in the Western Hemisphere. Oil and other mineral deposits may be discovered some day in the Manaus area which has not been explored fully as yet.

LITY OF
ERALIZA-
NTATIVE,
IN THE

47. Remind pupils about what they have learned early in the case study about the Manganese mine. Have them examine maps to see if they can find any other minerals in the basin. Have them look at the oil maps again. Perhaps tell pupils that some people think the basin is "floating on oil," while others do not. Some people hope for finding much oil or many minerals in the anterior part of the basin. Ask: Why don't we know more about the resources of the basin? (Or why do you think these authors disagree?)
48. The film, Life in the Hot Rain Forest, is a good one to use for the last part of the case study, because it gives a good review of life in the region and the associated problems. As this film is viewed, pupils should try to identify factors which would allow greater population growth in this region. Are there any present now that would be applicable?
49. Read aloud conflicting quotations about the prospects for the Amazon basin for future growth. Ask: What do you think about its future? Why? What are the chief possibilities open?

-34-

ve learned earlier about
xamine maps to see if they
he basin. Have them check
bils that some authors
oil," while others see lit-
many minerals in this in-
Why don't we know more
? (Or why do you think

For minerals maps, see Kohn,
and Drummond, The World To-
day, pp. 272, 273.

orest, is a good source
udy, because it gives a
n and the associated prod-
upils should try to think
ater population growth in
ent now that would be ap-

Film: Life in the Hot Rain
Forest.

s about the promise of the
Ask: What do you think
e the chief possibilities

e.g. in Hanson, New Worlds
Emerging, chs. 6-7; Price,
Amazing Amazon, pp. 266-67,
279, 285-86, 296; James,
Latin Am., p. 551; Pan Am.
Union, Amazon, p. 19; Kohn
and Drummond, World Today,
p. 259.

BIBLIOGRAPHY

I. Books for Pupils

Bishop, Elizabeth, and the Editors of Life. Brazil (Life World Library). New York: Time, Inc., 1967 ed.

Gartler, Marion and George L. Hall. Understanding Brazil. River Forest: Laidlow, 1962.

Lindop, Edmond, et.al. Understanding Latin America. Boston: Ginn, 1966 ed.

May, Stella B. Brazil. Grand Rapids, Michigan: Fideler, 1966 ed.

Whittemore, Kathryn, et.al. The United States, Canada, Latin America. Boston: Ginn, 1962.

II. Articles and Booklets

National Geographic, September, 1962, pp. 328-331.

Pan American Union, Amazon, Washington, D. C.: Pan American Union, 1965.

Webb, Kempton. Brazil, (Today's World in Focus booklet.) Boston: Ginn, 1964.

III. Other Books

Deasey, et. al. The World's Nations. Philadelphia: Lippincott, 1958.

Hanson, Earl P. New Worlds Emerging. New York: Duell, Sloan and Pearce, 1949.

Kohn, Clyde and Dorothy Drummond. The World Today. New York: McGraw Hill, 196

James, Preston. Latin America. New York: Odyssey Press, 1959.

Price, Willard. Amazing Amazon. New York: Day, 1952.

1680
c/

Grade Five
Unit: Latin America
7 Sub-unit -- Case Study on
Sao Paulo

RESOURCE UNIT 7/3

These materials were developed by the Project Social Studies Center of the University of Minnesota under a special grant from the U.S. Office of Education. (Project No. HS-045)

1968

-1-
OBJECTIVES

This unit should make progress toward teaching the

GENERALIZATIONS

- | | |
|---|---|
| 1. Things can be located at specific points on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude. | b. The sense level has limitations. |
| 2. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, prevailing winds, and physical features which block winds from certain directions. | c. Types of dependence upon physical features. |
| 3. Rainfall is affected by distances from bodies of water, wind direction, temperature, and physical features which block winds carrying moisture. | d. Man's dependence upon the earth's physical features. |
| 4. Soil in a particular place is affected in part by vegetation. | e. Improvement in agricultural methods and cost. |
| 5. Vegetation and what can be grown is affected in part by soil. | |
| 6. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology. | 7. Certain types of development are more dependent upon physical features. |
| a. The significance of location depends upon cultural developments both within and outside of a region or country. | 8. Some things are done in one place because of climate, skills, and resources. |

-1-

OBJECTIVES

ould make progress toward teaching the following:

ated at specific
th's surface, usually
abstract grid and
s of latitude and longi-

ected by the distance
elevation, distance
odies, prevailing winds,
ures which block winds
ctions.

ted by distances from
wind direction, temp-
ical features which
ing moisture.

lar place is affected
tion.

at can be grown is
by soil.

ical environment in
ural values, percep-
of technology.

nce of location de-
ltural developments
nd outside of a re-
ry.

b. The topography of a region may present limitations, given a specific level of technology; however, man has learned to overcome many of these limitations.

c. Types of agriculture in a region depend upon man's cultural values, perceptions, and technology as well as upon climate, soils, and topography.

d. Man changes the character of the earth.

1) Soil in a particular place is affected in part by how man treats the soil.

e. Improved transportation facilities make possible wider and bigger markets as well as greater and less costly access to resources.

7. Certain physical features of sites are more desirable than others for the development of a port city.

8. Some things can be produced better in one place than in another because of climate, resources, access, people's skills, etc.

- a. A place needs cheap and rapid transportation in order to carry on much trade with other places.
- b. Factories must have some form of power to run machinery.
 - 1) Power for industry is obtained from a number of sources, including water power or steam and electricity produced by burning coal.
- 9. Specialization of individuals, regions, and countries makes for interdependence.
 - a. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.
- 10. Every area on earth contains a combination of phenomena which share the space of places and regions. Some of these phenomena are closely interrelated, while other merely happen to be there and may have no causal dependence upon the others. Those phenomena which are tied together causally result in places and regions of distinctive character.
- 11. People tend to work hardest at those jobs or invest their money in those enterprises for which they will receive the greatest incentives (monetary and non-monetary).
- 12. A man's job opportunities are limited by his training and skills.

12. The abi

SKILLS

- 1. Set
- 2. Dra
- 3. Int
- 4. Use
- 5. Int
- 6. Dra
- 7. App
- 8. Test
- 9. Gene
- 10. Cons

ATTITUDE

1. Eva
effe



cap and rapid transfer to carry on much places.

ave some form of machinery.

ustry is obtained of sources, in-power or steam ty produced by

ndividuals, regions, for interdependence.

y to grow up if they s which are needed ng community or for al region.

contains a combination which share the space ns. Some of these y interrelated, happen to be there al dependence upon phenomena which are ly result in places nctive character.

hardest at those t money in those h they will receive ves (monetary and

ities are limited skills.

12. The demand for goods is affected by the ability to pay as well as desire.

SKILLS

1. Sets up hypotheses.
2. Draws inferences from pictures.
3. Interprets graphs.
4. Uses atlas index to locate places.
5. Interprets map symbols according to map legend.
6. Draws inferences from a comparison of different map patterns of the same place
7. Applies previously-learned concepts and generalizations to new data.
8. Tests hypotheses against data.
9. Generalizes from data.
10. Considers alternative courses of action.

ATTITUDES

1. Evaluates conditions on the basis of their effects upon individuals as human beings.

OBJECTIVES

OUTLINE OF CONTE

- S. Uses atlas index to locate places.
 - G. Things can be located at specific points on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude.

 - S. Sets up hypotheses.
 - S. Tests hypotheses against data.
 - G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, prevailing winds, and physical features which block winds from certain directions.
 - G. Rainfall is affected by distances from bodies of water, wind direction, temperature, and physical features which block winds carrying moisture.

 - G. The topography of a region may present limitations, given a specific level of technology; however, man has learned to overcome many of these limitations.
- 1. Sao Paulo, the South American Southeastern

 - A. Sao Paulo the cliff plain.
 - 1. The climate from the of 2,800
 - 2. Sao Paulo is only - B. Sao Paulo its latitude the high elevation
 - C. There is population round the city

-3-

OUTLINE OF CONTENT

1. Sao Paulo, the most rapidly growing city in South America, is located on the highlands of Southeastern Brazil.

A. Sao Paulo is situated a short distance west of the cliff which drops down to the coastal plain.

1. The cliff of the Serra do Mar rises sharply from the plains along the coast to a height of 2,800 feet.

2. Sao Paulo is inland just a short distance and is only slightly lower than that.

B. Sao Paulo has a relatively cool climate despite its latitude. Temperatures are moderated by the high elevation.

C. There is plentiful rainfall in the region around the city.

TEACHING PROCEDURES

1. Have a pupils use an atlas index to locate Sao Paulo on a wall map of Brazil (or South America).
2. Now have pupils examine a physical map and try to describe briefly in writing what they think the physical features around Sao Paulo would be like, what the temperature would be like, and what precipitation would be like. Let them check their hypotheses about climate with climatic charts.
3. Tell pupils about the sharp rise of the cliff from the coastal plain. Show the map which shows the cliff with both a road and railroad going up it. Ask: How easy do you think it would be to build such transportation? Now read aloud a description of the railroad. What inventions were needed to overcome the handicaps of topography?

MATERIALS

an atlas index to locate Sao Paulo on
(or South America).

Wall map of Brazil or South
America.

Draw a physical map and try to describe
writing what they think the physical
Sao Paulo would be like, what the tem-
perature would be like, and what precipitation would be
expected. Check their hypotheses about climate against

Physical map of Brazil or S.
America. (e.g., Whittemore,
et.al., The U.S., Canada,
Latin Am., pp. 100-101 of sec-
tion on Lat. Am. Gartler and
Hall, Understanding Brazil,
pp. 4, 12.) Lindop, Understand-
ing Lat. Am., p. 385.

For maps of Jan. and July tem-
perature, see May, Brazil,
p. 18. For rainfall maps, see
Gartler and Hall, p. 12. For
rainfall chart, see Whittemore,
p. 106 of section on Lat. Am.

Describe the sharp rise of the cliff from the
road on the map which shows the cliff and
road going up it. Ask: How easy
would it be to build such transportation?
Describe the construction of the railroad. What in-
terventions would be needed to overcome the handicaps of this

Lindop, Understanding Latin
Am., pp. 401 (description),
402 (map). Or see Whittemore,
et.al., U.S., Canada, Lat. Am.,
p. 110 of section on Lat. Am.

-5-

S. Interprets map symbols according to map legend.

D. The origin with some

S. Applies previously-learned concepts and generalizations to new data.

G. Soil in a particular place is affected in part by vegetation.

G. Vegetation and what can be grown is affected in part by soil.

E. Much soil is free, not so

S. Generalizes from data.

II. We look at Sao

S. Sets up hypotheses.

A. The city had was not near in the near

G. The significance of location depends upon cultural developments both within and outside of a region or country.

B. Sao Paulo was important set eral factor crease in n

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

1. The s region i

2. Gold and in small Paulo an slightly many peo

-5-

According

- D. The original vegetation was largely forests, with some grasslands.

ed concepts
new data.

ce is af-
tion.

be grown
soil.

- E. Much soil in the region is very good for coffee, not so good for some other crops.

II. We look at Sao Paulo in 1883.

- A. The city had a population of about 35,000 and was not nearly so important as the other cities in the nearby area. Streets were unpaved.

tion de-
velopments
of a re-

- B. Sao Paulo was still just on the fringes of important settlements in Brazil. However, several factors were leading to a population increase in nearby regions.

vironment
values,
f technol-

1. The sugar plantations of the northeastern region in Brazil declined.
2. Gold and some other minerals were discovered in small quantities near the site of Sao Paulo and in much larger quantities just slightly north of Sao Paulo. This brought many people further south.

4. Project a vegetation map of Brazil or South America. What was the original vegetation like in this region? What effect might such vegetation have upon the soil in the region?

5. Ask: Can we speak of rich soils or good soils, with knowing what is grown? Quote James on the varying of the soils in the region for different kinds of crops.

6. Have pupils check the population of Sao Paulo in 1800. Compare with some town which they know. Also ask: How did Sao Paulo compare with the Buenois Aires of 1800 (some thirty years earlier)? What factors might explain the difference?

7. Point out that the city was not nearly so important as many other towns in the nearby area. Ask pupils to think of possible reasons. Then tell them about the population distribution at this time (or show maps of

Have a pupil investigate the way in which the sugar plantations and gold hunters moved into the region some distance north of Sao Paulo. Discuss: How would this affect the city?

-6-

of Brazil or South America.
Vegetation like in this region?
Vegetation have upon the soil

James, Latin Am., pp. 44-45.

poor soils or good soils, without
quote James on the varying value
for different kinds of crops.

James, Lat. Am., pp. 474-76.

Vegetation of Sao Paulo in 1883.
What do they know. Also ask: How
the Buenois Aires of 1850
? What factors might explain

"Student Almanac."

is not nearly so important as
the nearby area. Ask pupils to
Then tell them about the pop-
ulation time (or show maps of it).

Webb, Brazil, pp. 55-58.

The way in which the sugar plan-
tation was introduced into the region somewhat
interesting. How would this affect the

S. Applies previously-learned concepts and generalizations to new data.

3. There w
coffee
south i

S. Sets up hypotheses.

G. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.

S. Draws inferences from pictures.

III. We look at Sa

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

S. Interprets graphs.

A. The city ha
people and
in South Ar
of much der
found in mo

S. Generalizes from data.

1. Most of
into the
They hav
parts of

2. This re
populat
zil, bu
and Neg
bbod in

-7-

concepts
new data.

3. There was a growing demand for coffee, and coffee plantations were beginning to come south into the region around Sao Paulo.

up if
ich are
commun-
ional

tures. III. We look at Sao Paulo today.

ironment
values,
technol-

- A. The city has a population of about $4\frac{1}{2}$ million people and is the most rapidly growing city in South America. It is situated in a region of much denser rural population than can be found in most parts of Brazil.
 1. Most of the people in this region have come into the area during the last 100 years. They have come from abroad and from other parts of Brazil.
 2. This region has a more predominately white population than some other sections of Brazil, but there is some mixture with Indians and Negroes and a number of people of mixed blood in neighboring areas.

8. Now tell the class about the coffee shops of England, the way in which coffee was being discussed as a cure for many diseases. Why might people want to grow coffee in Brazil? Where would they first try to grow it? (in areas already being farmed or in new areas?) Tell pupils how the coffee plantations were being pushed down into the Sao Paulo region from places further north. Ask: might the growth of coffee plantations affect the town?

9. Project several photographs of Sao Paulo today. Ask: What had happened to the size of this city? What can you tell about the city from these pictures?

10. Have a pupil prepare a graph to show the growth of the population of Sao Paulo from 1883 until today. The pupil might make another graph to show the growth of population in the state of Sao Paulo.

Tell pupils where most of the people came from and about the population composition. Compare the composition of the population with that of other places in South America which pupils have studied so far.

-8-

out the coffee shops of England and
ee was being discussed as a cure
ny might people want to grow coffee
ld they first try to grow it? (In
armed or in new areas?) Tell pupils
tions were being pushed down into
from places further north. Ask: How
offee plantations affect the town?

graphs of Sao Paulo today. Ask:
the size of this city? What can
ty from these pictures?

a graph to show the growth of the
o from 1883 until today. The pu-
r graph to show the growth of pop-
of Sao Paulo.

t of the people came from and about
tion. Compare the composition of
hat of other places in South Ameri-
studied so far.

Gray, Exploring Am. Neigh-
bors, p. 228; Webb, Brazil,
pp. 36-37; Lindop, Understand-
ing Lat. Am., p. 403; Gartler
and Hall, Understanding Brazil,
p. 25; Bishop, Brazil,
p. 80; Nat'l. Geog., Sept.,
1962, pp. 313, 315-318; May,
Brazil, pp. 28, 34, 36.

James, Lat. Am., pp. 480-82.

G. Some things can be produced better in one place than in another because of climate, resources, access, people's skills, etc.

B. Sao Pa region coffee produc

S. Interprets graphs.

S. Interprets map symbols according to map legend.

1. In est gio cof cen por

S. Sets up hypotheses.

G. Types of agriculture in a region depend upon man's cultural values, perceptions, and technology as well as upon climate, soils, and topography.

2. Cot are

S. Tests hypotheses against data.

3. The ing

4. The reg tod duc

S. Sets up hypotheses.

C. Sao Pa Latin the pr

S. Tests hypotheses against data.

G. People tend to work hardest at those jobs or invest their money in those enterprises for which they receive the greatest incentives (monetary and non-monetary).

1. The ces the



-9-

be produced better
in another be-
resources, ac-
kills, etc.

B. Sao Paulo is situated in a rich agricultural region which produces a large share of Brazil's coffee, as well as many other agricultural products.

S.

ymbols according

es.

ture in a region
s cultural values,
technology as well
soils, and topog-

against data.

1. In the rural areas of the state, the richest farmlands are in the former forest regions. The chief agricultural product is coffee. Indeed, this state is the coffee center of Brazil. Coffee is the chief export of the country.
2. Cotton is also an important crop in this area.
3. The grassland areas are used today for raising cattle.
4. There is some sugar cane produced in the region; it can be grown more cheaply here today than further north where it was produced first.

es.

against data.

C. Sao Paulo is the largest industrial city in Latin America. Its industries were built from the profits of the coffee plantations.

ork hardest at
vest their money
ises for which
greatest incen-
and non-monetary).

1. There are a number of industries which process goods produced in the region around the city.

11. Have several pupils present a symposium on the production of coffee on the fazenda. They should project photographs to illustrate their report. Or have all of the pupils read about coffee growing and life on a fazenda.

Project a graph showing leading exports of Brazil. Ask: How does coffee rank among other products?

12. Project a map showing land use in the state of Sao Paulo. Ask: What are the important products? Why do you think these crops are grown there?

Have several pupils use different reference books to check on the class' hypotheses.

13. Tell pupils that Sao Paulo is the largest industrial city in Latin America. Then have pupils try to figure out what kinds of industries might have grown up in Sao Paulo. Give them a list against which to check.

Ask: Where would people have gotten the money to build these factories? How did the people around Sao Paulo spend their money? Why might they use it to build factories after the price of coffee dropped greatly?

-10-

Is present a symposium on the production of a fazenda. They should project photographs in their report. Or have all of the pupils describe growing and life on a fazenda.

Lindop, Understanding Lat. Am., pp. 399-401, 404-405; Gray, Exploring Am. Neighbors, pp. 229-230.
For graph, see Gray, p. 231.

Showing leading exports of Brazil. Ask: Rank among other products?

Showing land use in the state of Sao Paulo. What are the important products? Why do you think they are grown there?

James, Lat. Am., p. 476.

How do you use different reference books to test your hypotheses.

Sao Paulo is the largest industrial city in Brazil. Then have pupils try to figure out what products might have grown up in Sao Paulo. Give them a list to check.

How have the people around Sao Paulo made their money? How might they use it to build factories? What happened when coffee dropped greatly?

2. The c
kinds

S. Sets up hypotheses.

D. A number
growth of

G. The significance of location depends upon cultural developments both within and outside of a country or region.

1. As the
the U.
and m
and co
are fo
grew t

G. Some things can be produced better in one place than in another because of climate, resources, access, people's skills, etc.

G. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.

G. Specialization of individuals, regions, and countries makes for interdependence.

2. With t
ber of
indust

G. People tend to work hardest at those jobs or invest their money in those enterprises for which they receive the greatest incentives (monetary and non-monetary).

a. As
ly,
ear
Sac

-11-

2. The city has also developed many other kinds of industries.

D. A number of factors account for this rapid growth of Sao Paulo.

1. As the demand for coffee grew in Europe and the U.S., Brazillians began to develop more and more coffee plantations. The best soil and conditions for growing coffee in Brazil are found in the Sao Paulo region. The city grew to help serve the coffee growers.

2. With the decline of coffee profits, a number of other factors combined to produce industrial growth.

- a. As the price of coffee declined drastical-ly, the plantation owners used their earlier profits to build industries in Sao Paulo.

-12-

Brazil, would be an appropriate source at this time. It deals with the three states of the country, including Sao Paulo, and a variety of activities within the region. As they watch the film, they should ponder whether or not the growth within region is a good thing economically.

Film: Southern Brazil,
USOIAA. Distributed by
DUART.

Think the city of Sao Paulo grew so rapidly today? Let pupils set up hypotheses. Do you know about the demand for coffee? Do they see adults doing and remind them of the first beginning to be drunk widely during the 19th century. Why would a rising demand for coffee affect Sao Paulo as well as the countryside?

Ask for the decline in the price of coffee. Ask: How would this affect the economy? If you had been a plantation owner with a good deal of money, what would you do? How would you continue to make more money?

James, Lat. Am., ;;. 488-490.

What if many of these people began to build businesses within Sao Paulo. Discuss: How would the people had not had a good deal of money? How would it have been so easy to build factories?

G. Man changes the character of the earth.

G. Soil in a particular place is affected in part by how man treats the soil.

S. Sets up hypotheses.

G. Certain physical features of sites are more desirable than others for the development of a port city.

S. Sets up hypotheses.

S. Tests hypotheses against data.

S. Applies previously-learned concepts and generalizations to new data.

G. A place needs cheap and rapid transportation in order to carry on much trade with other places.

b. Th
di
co

c. Th
pr
c

-13-

ter of the

ace is af-
man treats

res of sites
n others. for
ort city.

st data.

rned con-
ons to new

d rapid trans-
carry on much
s.

b. The city had a cooler climate and less disease than the cities in the low coastal plains.

c. The city's location close to Santos provides it with an excellent port close by.

17. Tell pupils that many coffee growers have moved to lands in the region which are not so good for growing the kinds of quality in high demand on the world market. As a result, coffee sales are declining as compared to sales of some other countries.

Ask: Why would these coffee growers move off the lands which had produced such high quality coffee? Tell the class something about what has happened to the soil and about the management of the plantations.

18. Have pupils study a series of maps showing the Sao Paulo region. For example, project once more maps showing elevation, rainfall, temperature, forest zones and major coffee producing areas. Why might the city grow despite the decline in coffee prices? (Point out that those who invested in industry must have had reason to expect profits. Why?) Let pupils set up hypotheses.

19. Show picture of Santos. Ask: What kind of site does it seem to have? Why does this site give it an advantage as a harbor? What would be needed besides such a site to bring about the growth of a large city here?

Tell pupils that a number of people work in Santos but live in Sao Paulo. Why do they think this might happen? Have pupils examine temperatures of both to see if they can get any ideas to explain this situation. One pupil might use a reference work to check on pupils' ideas.

Also discuss: Why would the location of Sao Paulo in relation to Santos be important for other reasons?

-14-

coffee growers have moved to lands
are not so good for growing the kinds
mand on the world market. As a re-
e declining as compared to sales of

coffee growers move off the lands
ch high quality coffee? Tell the
what has happened to the soil and
of the plantations.

eries of maps showing the Sao Paulo . Deasey, World's Nations,
project once more maps showing ele- p: 303.
perature, forest zones and major
s. Why might the city grow despite
prices? (Point out that those who
must have had reason to expect prof-
ls set up hypotheses.

s. Ask: What kind of site does it . Lindop, Understanding Lat.Am.,
es this site give it an advantage p. 398 ; Gartler and Hall,
uld be needed besides such a site Understanding Brazil, p. 24.
rowth of a large city here? Or May, Brazil, p. 37.

mber of people work in Santos but
hy do they think this might happen?
emperatures of both to see if they
explain this situation. One pupil
work to check on pupils' ideas.

uld the location of Sao Paulo in re-
mportant for other reasons?

- S. Sets up hypotheses.
- G. Factories must have some form of power to run machinery.
- G. Power for industry is obtained from a number of sources, including water power or steam and electricity produced by burning coal.

- G. Improved transportation facilities make possible wider and bigger markets as well as greater and less costly access to resources.

- G. Every area on earth contains a combination of phenomena which share the space of places and regions. Some of these phenomena are closely interrelated, while others merely happen to be there and may have no causal dependence upon the others. Those phenomena which are tied together causally result in places and regions of distinctive character.
- S. Draws inferences from a comparison of different map patterns of the same place.
- S. Sets up hypotheses.

d. Th
of
el
pl
Se
th
Sa
Sa

e. Go
Sa
wi

f. Th
wh
ar
opr
ra
ti

-15-

some form of
ery.

s obtained from
including water
electricity pro-
l.

ion facilities
and bigger mar-
ter and less
ources.

contains a com-
a which share
and regions.
ena are closely
others merely
nd may have no
on the others.
h are tied to-
lt in places
nctive character.

m a comparison of
ns of the same place.

d. The city developed a plentiful supply of electricity. Sao Paulo gets its electricity from a hydroelectric plant at the base of the cliff of the Serra do Mar. The water plunges over the cliff, and then is sent back to Sao Paulo as well as to the harbor of Santos.

e. Good transportation lines connect Sao Paulo with the hinterland and with the port of Santos.

f. The city is located in a spot in which a number of other factors which are conducive to manufacturing development combine with easy access to raw materials needed for industrialization.

20. Discuss: What is needed in order to run machines in factories? How might electricity be produced in the Sao Paulo area? (Let pupils consider what they know about the area in order to set up hypotheses.)

Read aloud a description of the way in which electricity is made in the Sao Paulo area. Project a map to show the area. Now discuss the advantages which Sao Paulo has over some other Brazillian cities because of this electricity. Compare with the lack of hydroelectric power in Buenos Aires.

21. Project a map showing railroads, highways, and airlines into Sao Paulo. How good does transportation into Sao Paulo seem to be? Why is this network important for the city?
22. Now project a series of Deasey's maps on different factors which create human potential for manufacturing in this area. Discuss the first factor which Deasey and his co-authors call "human activity stimulated by climate." Ask: What do you think the authors mean by this? Do you think that climate might be a factor? Why or why not? Also discuss the other factors. (Why was each included? Do you think it an important factor?)

Have several pupils prepare an overlay set of maps of these factors. Then have them use a grease pencil to draw in an outline where the four factors shown in these maps are found in the same place. Let them also draw a boundary around those places where at least one of the factors is found. Now let them make a map such as that found in Deasey's map of human potential for

-16-

ed in order to run machines in fac-
ctricity be produced in the Sao
ls consider what they know about
et up hypotheses.)

Lindop, Understanding Latin
America, pp. 401-402.

on of the way in which elec-
Sao Paulo area. Project a map
discuss the advantages which
e other Brazillian cities be-
ity. Compare with the lack of
Buenos Aires.

railroads, highways, and air-
How good does transportation
be? Why is this network impor-

Webb, Brazil, p. 74.

f Deasey's maps on different fac-
n potential for manufacturing
the first factor which Deasey
l "human activity stimulated by
do you think the authors mean
that climate might be a factor?
discuss the other factors. (Why
you think it an important fac-

Deasey, et. al., World's
Nations, p. 308.

epare an overlay set of maps
n have them use a grease pencil
where the four factors shown in
n the same place. Let them also
those places where at least one
d. Now let them make a map such
y's map of human potential for

S. Tests hypotheses against data.

S. Sets up hypotheses.

S. Generalizes from data.

E. An urban population
several factors
plex social

1. South American
population
growth in

a. By 1975
American
city.

ata.

E. An urban population explosion can stem from several factors, and may result in complex social problems.

1. South America exhibits a rapid urban population growth contrasted with low growth in rural areas.

a. By 1975 over half the people in South America will be living in a town or city.

manufacturing. They should locate Sao Paulo and Rio de Janiero on the map. Which seems to be best situated for the growth of manufacturing? Why?

23. Now project an overlay of maps such as those in Deasey showing major mining areas, major potential waterpower sites, major fiber and hide areas, and major lumbering areas. Discuss each as a factor which might make manufacturing easier, given the other human factors discussed earlier.

Deas
Nat

Let pupils use a grease pencil to draw in area where the largest number of these raw material factors are superimposed on the overlay. Have them locate Sao Paulo and Rio de Janiero. Ask: Where are they located in relationship to this area of potential? Considering all of these factors shown on all of these maps, which city do you think would become more important as an industrial center? Why?

Now have a pupil check in a textbook to find out which of the two cities is more important industrially.

24. Tell the pupils that Sao Paulo provides just one example of problems facing Latin America today--the problems arising from rapid growth of cities. Let pupils try to figure out what some of these problems might be.
25. Compare population percentages of urban-rural ratios in the United States and South America. Why is rapid urban population growth in South America considered a problem? Note that the United States is more heavily populated in urban regions than is South America and yet the United States does not have the same problems. Why?

-18-

Why should locate Sao Paulo and Rio de Janeiro? Which seems to be best situated for manufacturing? Why?

Study of maps such as those in Deasey and his areas, major potential waterpower and hydro areas, and major lumbering areas as a factor which might make manufacturing more important than the other human factors discussed.

Deasey, et. al., The World's Nations, p. 309.

Use pencil to draw in area where each of these raw material factors are located. Have them locate Sao Paulo and Rio de Janeiro. Ask: Where are they located in relation to the area of potential? Considering all the maps shown on all of these maps, which city would become more important as an industrial center?

Check in a textbook to find out which city is more important industrially.

Sao Paulo provides just one example of rapid growth in Latin America today--the problems of rapid growth of cities. Let pupils try to identify some of these problems which might be.

Compare percentages of urban-rural ratios in the United States and South America. Why is rapid growth in South America considered a problem while the United States is more heavily rural? Why are some regions in the United States more heavily urbanized than is South America and yet do not have the same problems. Why?

- b. Of
cit
- 2. There
concer
- a. Mos
50
tow
- b. So-
hav
- 1.)
- 2.)

- S. Sets up hypotheses.
- S. Tests hypotheses against data.

- 3. Basic
in cit
Paulis
center
nently
- a. Man
eno
tur
onl
ret
- b. Tho
the
cul

- b. Of these, one of four will be major cities.
- 2. There is general agreement on the factors concerning this growth.
 - a. Most migrants, who account for 40-50 percent of city growth, are small town or rural non-farm workers.
 - b. So-called "push" and "pull" factors have been identified.
 - 1.) Most come because of the "push" factors in the countryside: poverty and limited opportunity.
 - 2) Others come as the result of the "pull" factors in the city: better educational, health, and entertainment facilities.
- 3. Basic cultural differences are apparent in city life as well as in rural. Most Paulistas are newcomers from other urban centers who have come to settle permanently.
 - a. Many, however, come only to work long enough to earn a sum of money and return to their homes. They may stay only a year or so at a time, and many return three or four times.
 - b. Those who come from rural areas find the adjustment to city life a difficult one to make.

st data.

26. Since this case study is concerned with the problems of urban growth and industrialization, an introductory discussion should be held to bring out reasons why people would move to the cities. What are some reasons for this movement? Assign several of Brazil's major cities to groups as a research topic. Include Sao Paulo, and have reports by the groups in order to compare the growth and importance of each to that of Sao Paulo. A discussion on the peripheral location of Brazil's major cities should lead to the concept that they are in general "tied to the sea" and find outlets for their goods in other countries of the world instead of within the "empty interior". Have pupils read an account of the building of Brasilia, Brazil's new capital. Review the rationale behind this move, in the hope of developing and populating the empty interior. Ask: How has the construction of Brasilia actually added to the already rapid growth of urban population in the coastal regions?
27. Discuss: Why might it be difficult for people who have worked on plantations such as you have studied or who have worked in the forests to come to live in the city? Set up a series of hypothetical examples to illustrate the problems.

dy is concerned with the problems of industrialization, an introductory discussion to bring out reasons why people would move. What are some reasons for this movement of Brazil's major cities to groups of cities? Include Sao Paulo, and have reports made to compare the growth and importance of Sao Paulo. A discussion on the movement of Brazil's major cities should lead to the fact that they are in general "tied to the sea" for their goods in other countries of the world. Have students discuss the movement of goods within the "empty interior". Have students discuss the building of Brasilia, Brazil's new capital. Have students discuss the rationale behind this move, i.e., the movement of goods and populating the empty interior. Have students discuss the construction of Brasilia actually added to the growth of urban population in the

Textbooks and other reference works.

For pictures and descriptions of Brasilia, see May, Brazil, pp. 42-47. Bishop, Brazil, pp. 59-67.

it be difficult for people who have lived in the forests as you have studied or who have lived in the forests to come to live in the city? Use hypothetical examples to illustrate

A. EVALUATES CONDITIONS ON THE BASIS OF THEIR EFFECTS UPON INDIVIDUALS AS HUMAN BEINGS.

G. A man's job opportunities are limited by his training and skills.

S. Sets up hypotheses.

1) A
d
2) R
m
3) H

4. Instabi
flectio

a. Beca
port
citi

1) Y
e

2) H
a

b. At t
to i
situ

1) T
a

2) M
h
q
o

-21-

- 1) After working as a family, it is difficult to work for someone else.
- 2) Relationships with co-workers and managers are very impersonal.
- 3) Housing is a definite problem.

ON THE BASIS
INDIVIDUALS

ies are limited
kills.

4. Instability in urban structure is a reflection of basic rural instability.
 - a. Because of poverty and limited opportunity, many people come to the cities.
 - 1) Yet, these people are not really equipped for good jobs in the city.
 - 2) Hence, they remain in poor jobs on a temporary basis.
 - b. At the same time, little is being done to improve the rural agricultural situation.
 - 1) Thus, production is low, poverty and dissatisfaction are high.
 - 2) Moreover, the rural people do not have the degree of wealth to qualify as a market for the goods of the cities.

28. Have a pupil investigate and report on some of the slums and housing problems in some of Brazil's large cities. Discuss: Why do such problems develop?
29. Discuss: What kinds of jobs could an average city immigrant get, given his rural background and limited formal education? A quick look at the employment section of any city newspaper can give a valid comparison in terms of requirements for industrial jobs.
30. Have pupils or a pupil again read an account of life on a large estate. Point out the percentage of land held in these large landed estates. Ask: What agricultural problems could this situation produce? How could low farm incomes affect the market for city-made goods?

-23-

G. The demand for goods is affected by the ability to pay as well as desire.

S. Considers alternative courses of action.

-24-

31. Show the film, Brazil. This film will show the contrasts in ways of living in the country. When viewing, have students consider this question--Why is it necessary for the industries of Sao Paulo to seek markets for most manufactured goods in foreign countries? Film: Brazil, MGHT.
32. Have groups of pupils assume the roles of economic development teams: agricultural, educational, industrial, natural resources, etc., and prepare reports on how they plan to better the situation in their areas of interest.

BIBLIOGRAPHY

I. Books and Booklets

Bishop, Elizabeth and the Editors of Life. BRAZIL (Life World Library Book) New York: Time Incorporated, 1967 ed.

Deasey, George F. and others. THE WORLD'S NATIONS. Chicago: Lippincott, 1958. (For maps for projection.)

Gartler, Marion and George L. Hall. UNDERSTANDING BRAZIL. River Forest: Lairlow, 1962.

Gray, William H., et. al. EXPLORING AMERICAN NEIGHBORS IN LATIN AMERICA AND CANADA. Chicago: Follett, 1960.

James, Preston. LATIN AMERICA. New York: Odyssey Press, 1959 ed. (For teacher.)

Lindop, Edmund, with Ernest W. Tiegs and Fay Adams. UNDERSTANDING LATIN AMERICA. Boston: Ginn, 1966 ed.

May, Stella B. BRAZIL. Grand Rapids, Michigan: Fideler, 1966 ed.

Webb, Kempton E. BRAZIL. (Today's World in Focus Booklet.) Boston: Ginn, 1964.

Whittemore, Kathryn, et. al. THE UNITED STATES, CANADA AND LATIN AMERICA. Boston: Ginn, 1962.

II. Films

BRAZIL, min., Co

SOUTHERN of Inter- 20 min.

BIBLIOGRAPHY

II. Films

ts
n and the Editors of
fe World Library Book)
ncorporated, 1967 ed.

and others. THE WORLD'S
: Lippincott, 1958. (For
ion.)

and George L. Hall. UNDER-
River Forest: Lairlow,

et. al. EXPLORING A-
S IN LATIN AMERICA AND
Follett, 1960.

LATIN AMERICA. New York:
959 ed. (For teacher.)

with Ernest W. Tiegs
UNDERSTANDING LATIN A-
Ginn, 1966 ed.

BRAZIL. Grand Rapids,
, 1966 ed.

BRAZIL. (Today's World
) Boston: Ginn, 1964.

ryn, et. al. THE UNITED
ND LATIN AMERICA. Boston:

BRAZIL, March of Time, Producer. 13
min., Coronet South American Series.

SOUTHERN BRAZIL, United States Office
of Inter-American Affairs, Producer.
20 min.

1682
C1

Grade Five
Unit: Latin America
Sub Unit - Chile

1

RESOURCE UNIT 7/5

These materials were developed by the Project Social Studies Curriculum Center of the University of Minnesota under a special grant from the U.S. Office of Education. (Project HS-045).

1968

266

OBJECTIVES

This unit should make progress toward developing the following

GENERALIZATIONS

1. Site relates a phenomena to the detailed physical setting of the area it occupies.
2. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, ocean currents, prevailing winds, and physical features which block winds from certain directions.
3. Rainfall is affected by distances from bodies of warm water, ocean currents, wind direction, temperature, and physical features which block winds carrying moisture.
 - a. Winds which cross cold water currents are cooled and will pick up moisture rather than dropping it as they cross land areas which are warmer than the water.
4. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
 - a. The significance of location depends upon cultural developments within and outside of a country or region.
- b. Climate may man's activity level of technology learned to overcome earlier limitations.
- c. Political boundaries and frequent natural physical features.
- d. A number of surface features accessibility settlement patterns.
5. Some things can place than in an resources, transition to resources, acquisition skills, etc.
6. A region is an homogeneous features highly homogeneous zonal zones where between different.
7. The world is a continent countries.

- i -

OBJECTIVES

ould make progress toward developing the following:

omena to the de-
cting of the area it

ected by the dis-
tor, elevation,
water bodies,
ailing winds, and
hich block winds
ions.

d by distances from
t, ocean currents,
perature, and physi-
block winds carry-

ss cold water cur-
d and will pick up
than dropping it
and areas which are
water.

al environment in
al values, percep-
technology.

e of location de-
ral developments
de of a country

- b. Climate may set up limitations on man's activities given a specific level of technology, but man has learned to overcome many of the earlier limitations.
- c. Political boundaries are man-made and frequently do not follow any natural physical boundaries.
- d. A number of factors -- climate, surface features, natural resources, accessibility, and history -- affect settlement patterns.

- 5. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, etc.
- 6. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.
- 7. The world is a community of interdependent countries.

- | | |
|---|---------------------------------|
| 8. Specialization of countries makes for interdependence. | 6. Draws different area. |
| 9. Diversification of production makes a company of a region less dependent upon price fluctuations for one product or upon the supply of specific resources. | 7. Develops particular area. |
| 10. Machinery and power make possible greater production per person and lower cost per unit. | 8. Gains in production. |
| 11. The organizational structure of the total economy or of any large section of it (such as agriculture) affects efficiency of production and output. | a. Draws different area. |
| 12. The power to allocate resources is important to the power to control what and how much will be produced. | 9. Interprets map symbols. |
| | 10. Gains in production. |
| | 11. Applies general principles. |
| | 12. Tests hypotheses. |
| | 13. Generalization. |

SKILLS

1. Sets up hypotheses.
2. Uses atlas index to locate places.
3. Compares distances.
4. Compares areas.
5. Interprets map symbols.

-ii-

tries makes for

duction makes
less dependent
s for one pro-
y of specific

ke possible
person and

ture of the
y large section
ture) affects
on and output.

resources is im-
o control what
roduced.

cate places.

6. Draws inferences from a comparison of different map patterns of the same area.
7. Develops a system of regions to fit a particular purpose.
8. Gains information by studying pictures.
 - a. Draws inferences from pictures.
9. Interprets pie (circle) graphs.
10. Gains information by studying films.
11. Applies previously-learned concepts and generalizations to new data.
12. Tests hypotheses against data.
13. Generalizes from data.

OBJECTIVES

OUTLINE OF CONTENTS

S. Interprets map symbols.

I. Chile is a long narrow strip along the coast of South America.

A. It is divided into coastal highlands and valleys.

S. Compares distances.

B. Chile has a long coastline.

S. Compares areas.

C. Chile is divided into regions.

G. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.

S. Develops a system of regions to fit a particular purpose.

S. Draws inferences from a comparison of different map patterns of the same area.

S. Sets up hypotheses.

S. Tests hypotheses against data.

-1-

OUTLINE OF CONTENT

- I. Chile is a long, narrow country on the western coast of South America.
 - A. It is divided into high mountains on the east, coastal highlands and mountains on the west, and valleys inbetween.
 - B. Chile has a larger north-south distance than does the U.S., although it covers a much smaller area.
 - C. Chile is usually divided into three major regions.

one or more
The core area
but there are
e boundaries
rent regions.

gions to fit

comparison
is of the same

t data.

TEACHING PROCEDURES

1. Have pupils examine a physical-relief map of Chile. What do they notice about the physical relief? How does it change from north to the south?

2. Have a pupil use a string to measure the north-south distance on a globe and then to measure off a similar distance in North America. Or have pupils count the number of degrees of latitude in Chile and compare it with the number in the U.S. or North America.

3. Have pupils guess at the area of Chile as compared with some of the states in the U.S. Then have a pupil look up areas and make a bar graph to compare them.

4. Tell pupils that most geographers speak of three major regions in Chile. How would pupils regionalize or divide up the country on the basis of physical relief alone?

Now show pupils a map of the three main regions usually designated by geographers. Ask: Why do you think the regions are not based upon physical relief?

Show photos illustrating the three different regions without telling pupils the location for them. Now ask: What differences do you see between these three regions? Where do you think they might be found on the map?

Have pupils examine a physical map, a map of currents, and a map of prevailing winds. They should try to set

MA
Phy
or
che
The
Glo
Wor
Phy
or
see
8-1
Lat
306
U.S.
pp.
oce
win
and
Jan
see
fal
a m
and
Wor
map

MATERIALS

Physical-relief map of Chile. What is the physical relief? How does it change from north to south?

Physical-relief map of Chile or South America. (e.g. Borchert and McGuigan, Geog. of The New World, pp. 402-403.)

How to measure the north-south distance on a globe. Or have pupils count the number of degrees of latitude in Chile and compare it with the distance in North America.

Globe and string.

Area of Chile as compared with the U.S. Then have a pupil look at a map to compare them.

World Almanac.

Geographers speak of three major regions. How should pupils regionalize or divide the basis of physical relief?

What are the three main regions usually found? Ask: Why do you think the physical relief is different?

What are the three different regions and their location for them. Now ask: What are the differences between these three regions? What might be found on the map?

Physical map, a map of currents, and a map of winds. They should try to set

Physical relief map of Chile or South America. For pictures see, Chile in Pictures, pp. 6, 8-11, 13; Lindop, Understanding Latin America, pp. 290, 292-293, 299, 306-310; Whittemore, et.al., U.S., Canada, Latin America, Pt. II, pp. 50, 54, 58, 59. For maps of ocean currents and prevailing winds, see Goode's World Atlas, and James, Latin America, p. 43. For January and July temperature maps, see James, pp. 30-31. For rainfall map, see James, p. 40. For a moisture map, see Borchert and McGuigan, Geog. of the New World, p. 409. For vegetation map, see James, p. 239.

G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, ocean currents, prevailing winds, and physical features which block winds from certain directions.

S. Sets up hypotheses.

S. Tests hypotheses against data.

S. Tests hypotheses against data.

G. Site relates a phenomena to the detailed physical setting of the area it occupies.

G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, ocean currents, prevailing winds, and physical features which block winds from certain directions.

G. Rainfall is affected by distances from bodies of warm water, ocean currents, wind direction, temperature, and physical features which block winds carrying moisture.

1. The central valleys which units by the

a. About one this region the east, highlands v sea at most Central Va many valley

b. The central and mild we iation in b tion as one northern er southern er

ected by the dis-
ator, elevation,
water bodies,
evailing winds,
res which block
directions.

ainst data.

ainst data.

omena to the de-
ting of the area

ected by the dis-
tor, elevation,
ater bodies,
vailing winds,
es which block
directions.

d by distances
water, ocean
ction, tempera-
features which
g moisture.

1. The central region is a region of fertile valleys which are divided into many small units by the physical relief.
 - a. About one third to a half of the width of this region is taken up by the Andes to the east, another third by the western highlands which dip down sharply into the sea at most places, and the rest by the Central Valley which is really made up of many valleys separated by high spurs.
 - b. The central region has cool, dry summers and mild wet winters. There is some variation in both temperature and precipitation as one moves from the drier and warmer northern end to the wetter and cooler southern end of Middle Chile.

up hypotheses about where the places shown in the pictures were taken and so about the temperature, rainfall and vegetation of each region. Let them check against maps showing these rainfall, temperature, and vegetation patterns. Don't tell the class where photos were taken until after activity no. 5.

5. Put large maps of different patterns on the bulletin board or project them again. Ask each pupil to write a brief description of what he thinks the central region, northern region, and southern regions would be like. What would be the characteristics of each?
6. Prepare a picture display grouped according to the major regions of Chile to illustrate the great diversity of physical and cultural characteristics within this country.
7. Now discuss pupils' hypotheses about the central region. Read aloud a description so that they can check their ideas against those of geographers. Use photos to help pupils visualize the region. Ask: How can you explain the temperature and rainfall pattern in this region?

-4-

the places shown in the picture about the temperature, rainfall region. Let them check against all, temperature, and vegetation the class where photos were taken 5.

ent patterns on the bulletin board. Ask each pupil to write what he thinks the central and southern regions would be characteristics of each?

See above.

grouped according to the major features to illustrate the great diversity of physical characteristics within this country.

theses about the central region. so that they can check their maps with geographers. Use photos to help them. Ask: How can you explain the rainfall pattern in this region?

Lindop, Understanding Lat. Am., pp. 291-92, 296; Gray, Exploring Am. Neighbors, pp. 177-178.

S. Draws inferences from pictures.

- G. Rainfall is affected by distances from bodies of warm water, ocean currents, wind direction, temperature, and physical features which block winds carrying moisture.
- G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, ocean currents, prevailing winds, and physical features which block winds from certain directions.
- G. Rainfall is affected by distances from bodies of warm water, ocean currents, wind direction, temperature, and physical features which block winds carrying moisture.
- G. Winds which cross cold water currents are cooled and will pick up moisture rather than dropping it as they cross land areas which are warmer than the water.

S. Sets up hypotheses.

- 2. The no
Atacam
- a. i.
east
even
sing
gen
coas
abl
long
- b. In s
cor
a r
sou
dow
tan
wat
but
alor
- c. The
ert
- d. Thi

from pictures.

ected by distances
arm water, ocean
rection, tempera-
al features which
ing moisture.

ected by the dis-
uator, elevation,
m water bodies,
revaling winds,
ures which block
n directions.

ected by distances
arm water, ocean
rection, temper-
al features which
ing moisture.

cold water cur-
and will pick up
han dropping it
d areas which are
ater.

s.

2. The northern region is dominated by the Atacama desert.
 - a. This region, too, has high mountains to the east and highlands along the coast. However, the central area consists of dry basins within a plateau region which slopes gently from the Andes to the Western coastal region. These basins were probably lakes at one time but they dried up long ago.
 - b. In some places no rain has ever been recorded; however, some oases are found along a river which crosses the desert to the south and along some water sources coming down and entering the desert a short distance from the mountains to the east. The water tends to seep down below the surface but can be obtained by wells. Several places along the coast can use wells too.
 - c. The coastal and central parts of the desert have no vegetation at all.
 - d. This region has rich mineral resources.

8. Project a photo of some of the farm land in the Central Valley region. What do pupils notice about the color of the soil? Does this tell them anything about its fertility? Why or why not? (Review what pupils have learned earlier as they studied the U.S.)

9. Have pupils locate the Atacame desert on the map. Discuss their hypotheses about what this region would be like.

10. Read aloud descriptions of the Atacama Desert. Ask: Why would this region be so dry when it is close to the Pacific? Have a pupil read to find out. He should report to the class, using a map to illustrate his findings.

Project several photographs showing the Atacama Desert. For example show a picture of the desert with the Loa running through it. Read aloud a description of the town of Copiapo and how it gets its water.

11. At this point do not discuss thoroughly or have pupils study the minerals of the desert region. Rather ask: Why do you think anybody would want to live here? Let pupils set up hypotheses to check later.

of the farm land in the Central
to pupils notice about the color of
tell them anything about its fer-
? (Review what pupils have
studied the U.S.)

Lindop, Understanding Latin
America, p. 292.

Atacame desert on the map. Dis-
about what this region would be

Wall map of South America or
Chile. Or see Whittemore,
et.al., U.S., Canada, Lat. Am.,
Pt. II, p. 52; Lindop, Under-
standing Lat. Am., p. 291.

of the Atacama Desert. Ask: Why
dry when it is close to the Pa-
ad to find out. He should report
ap to illustrate his findings.

Lindop, Understanding Lat.
Am., p. 293.

aphs showing the Atacama Desert.
ure of the desert with the Loa
ad aloud a description of the
it gets its water.

Lindop, p. 293; Pendle, Land
and People of Chile, ff. p. 329
(photo), pp. 46-47; James, Lat.
Am., p. 255.

scuss thoroughly or have pupils
he desert region. Rather ask: Why
uld want to live here? Let pupils
eck later.

S. Draws inferences from pictures.

S. Tests hypotheses against data.

G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, ocean currents, prevailing winds, and physical features which block winds from certain directions.

G. Rainfall is affected by distances from bodies of warm water, ocean currents, wind direction, temperature, and physical features which block winds carrying moisture.

S. Gains information by studying pictures.

G. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.

3. Southern Cl

a. The region heavy forest grass and

b. The same the center south in Andes do the southern one mountain

c. The climate west coast wet summer

-7-

pictures.

st data.

ed by the dis-
r, elevation,
ter bodies,
ling winds,
which block
rections.

by distances
ater, ocean
on, temper-
atures which
moisture.

studying pic-

one or more
The core area
but there are
ere boundaries
ferent regions.

3. Southern Chile is a forested highland area.

- a. The region was originally covered by heavy forests, although there are some grass areas in the drier parts.
- b. The same general physical features of the central part of Chile are continued south into this region; although the Andes do not rise so high, and toward the southern end the land becomes almost one mountainous area.
- c. The climate is much like that of the north-west coast of the United States, with cool, wet summers and cool, wet winters.

12. Project pictures showing the lake district and some of the forests of Southern Chile. What physical features do they notice?

Li
Am

Discuss the pupil's descriptions of what they thought Southern Chile would be like.

13. Have pupils compare temperatures and the rainfall pattern for Chile and the west coast of the United States. Let them place the southern tip of Chile at the top of the bulletin board parallel with the Pacific coast region in this country. (Since Chile is longer from north to south, place it in the appropriate place in terms of distance from the equator.) Ask: What do pupils notice about the climate of the areas which are an equal distance from the equator?

14. The film on Chile would be an appropriate summary activity because it presents a brief description of all the "faces" of the country.

Fi

-8-

wing the lake district and some of
ern Chile. What physical features

Lindop, Understanding Lat.
Am., pp. 290, 307.

descriptions of what they thought
be like.

temperatures and the rainfall pattern
st coast of the United States. Let
ern tip of Chile at the top of the
el with the Pacific coast region in
e Chile is longer from north to south,
ppriate place in terms of distance
Ask: What do pupils notice about the
which are an equal distance from the

would be an ap-
tivity because it presents a brief
e "faces" of the country.

Film: Chile, E.B.F., 15 min.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

II. We look at and settled the regional groups of the Inca group and the land.

A. The Araucanians had a settlement. The Inca of Inca

1. Those close to the chief. They desert

2. Those in the valley they

B. The Araucanians forests were fields quest for

G. Man uses his physical environment in terms of his cultural values, perceptions and level of technology.

III. We look at

A. As might of population dominate estates.

S. Sets up hypotheses.

S. Tests hypotheses against data.

1. The S even

-9-

cal environment
atural values,
evel of technol-

II. We look at Chile prior to the Spanish explorations and settlements when the Araucanian Indians occupied the region. They were separated into two general groups both by the Inca conquest of the northern group and by the way in which they lived off the land.

A. The Araucanians of central and northern Chile had a settled agriculture, supported by irrigation. They had been brought under control by the Incas but were far enough from the center of Inca culture to remain fairly independent.

1. Those in the northern third of Chile remained close to water sources in oases and along the chief river. They were agriculturalists. They did not use the mineral resources of the desert region.

2. Those in central Chile spread out through the valley and developed irrigation ditches where they were needed.

B. The Araucanians of southern Chile lived in the forests and were hunters and fishers. They were fierce warriors who held off Spanish conquest for over two hundred years.

al environment
atural values,
el of technol-

III. We look at Chile in 1870.

A. As might be imagined, the heaviest settlement of population was in Central Chile, which was dominated by agriculture carried on in large estates.

ainst data.

1. The Spanish had settled in this region first, even though they found no minerals here. They

15. Assign a group to report on the Araucanian Indian culture in Chile. They should compare the culture of this group and others studied earlier in the course. Pupils should also note differences between those who lived in Southern forests and those who lived to the North.

Pan-
ians
Jame
265.

16. Tell pupils that they are now going to look at Chile in 1870. Review with them what they learned about the coming of the Spanish. Ask: Why might the Spanish wish to go to Chile once they decided it did not have much by way of minerals? Where would you expect most of the Spanish to settle? Why? Tell pupils when Chile got its independence. Ask: What would you expect, the population pattern to look like by 1870?

For
Lat.

-10-

part on the Araucanian Indian cul-
ture should compare the culture of this
region with that of the region discussed
earlier in the course. Pupils
should note differences between those who lived in
the South and those who lived to the North.

Pan. Am. Union, The Araucan-
ians. For teachers use, see
James, Lat. Am., pp. 237, 240,
265.

are now going to look at Chile in
light of what they learned about the com-
monwealth. Ask: Why might the Spanish wish
to take Chile? Why did they decide it did not have much by
itself? How would you expect most of the
population to live? Tell pupils when Chile got its
independence. What would you expect, the popula-
tion to be like by 1870?

For teacher use, see James,
Lat. Am., pp. 240-41.

G. A number of factors -- climate, surface features, natural resources, accessibility, and history -- affect settlement patterns.

divided up large haciendas, which

a. They grew fruit upon land in the highlands of the Andes

b. The landowners were engaged in herding. The high mountains were dry and were drained during the winter there.

c. Only about 10% of the central valley was irrigated. The chief crop was wheat. It came to replace the earlier crops from wheat from the north.

d. Some vineyards were almost everywhere. The major crop was wheat.

2. The Spanish settlers were Indians, so that the central region had Indian blood (the strains somewhat different). Social divisions were workers rather than large landowners.

G. Climate may set up limitations on man's activities given a specific level of technology, but man has learned to overcome many of the earlier limitations.

B. The northern area was isolated, but it was rich in minerals and copper.

1. Some Indian settlements

divided up land into huge estates known as haciendas, which were worked by the Indians.

- a. They grew feed crops in the central valley upon land irrigated from the melting snow of the Andes.
- b. The landowners were interested primarily in herding. The cattle grazed in the high mountain pastures during the summer and were driven down into the valleys during the winter and fed on the crops grown there.
- c. Only about one tenth of the land in the central valley was used to grow food; the chief crop was wheat. Even the Indians came to rely more heavily upon bread made from wheat than from maize.
- d. Some vineyards were also established on almost every hacienda; they were also the major crops in several sections.

2. The Spanish settlers had mixed with the Indians, so that most of the people in this central region were of mixed Spanish and Indian blood (mestizos), with the Spanish strains somewhat the stronger. However, the social division was between landowners and workers rather than between races. Even the large landowners had much mixed ancestry.

B. The northern area of Chile was not heavily populated, but it was being mined heavily for nitrates and copper.

1. Some Indian settlements remained close to

Have pupils read a brief description of central Chile in 1870. Afterwards discuss: Did your reading support or contradict your guesses about the population distribution? How did land use in the Central Valley compare with that in the Buenos Aires area which you have studied? What effect do you think this mixing of white and Indian people would have upon the way in which the people lived?

17. Tell pupils that some Indian groups continued to live in the desert in much the same way as they had in the past, close to water sources. Ask: Would you expect many white men to have come into this desert region. Why or why not?

See Lindop, Understanding La Am., p. 294.

-13-

sources of water

G. Political boundaries are man-made and frequently do not follow any natural physical boundaries.

2. During this period the region was owned by foreign companies operating in the area. Finally, Chile won the war with Peru which joined the long northern sea

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

3. The first resource was nitrates.

a. Nitrates were used as fertilizer and there was no competing industry. Some 50,000 tons of the country were produced in the 1850's.

b. Then it was discovered that nitrates could be used as fertilizer. Demand for Chilean nitrates after 1860.

c. It was very difficult to transport nitrates. Workers needed to be hired. Food supplies were scarce. Water had to be transported in tank cars.

-13-

sources of water.

ies are man-made
not follow any
boundaries.

2. During this period, much of this northern region was owned by Bolivia, although Chilean companies operated the nitrate mines. Finally, Chile went to war with Bolivia and Peru which joined Bolivia. Chile won the long northern section of the desert region.

cal environment
ltural values,
evel of technol-

3. The first resource to be exploited was nitrates.

a. Nitrates were found to be useful first as fertilizers. At this time there was no competing source of such nitrates. Some 50,000 tons of it were shipped out of the country each year during the late 1850's.

b. Then it was discovered that the nitrates could be used in high explosives and the demand for Chilean nitrates increased after 1860.

c. It was very difficult to care for the workers needed in the nitrate industry. Food supplies had to be brought in. Even water had to be piped in or brought by tank cars.

Tell pupils that three countries once even fought over this desert. Have pupils set up hypotheses as to possible reasons. They should check later as they continue this section of the unit.

18. Have a pupil read and give a report on the causes of the war and its results. Pupils should examine a map to note the old and new boundaries of Chile.

Gra
p.
Und

19. Have several pupils role-play a discussion between two western mine owners who are discussing the demand for nitrates for different purposes, mining techniques, land transportation which they are using, and the problems of feeding and providing water for the workers. Let them do some speculating about the prospects for profits in the future, given the fact that this area was the only known area in the world which produced such nitrates.

Pen
of

-14-

area countries once even fought over
pupils set up hypotheses as to possi-
should check later as they continue
unit.

and give a report on the causes of the
. Pupils should examine a map to note
boundaries of Chile.

Gray, Exploring Am. Neighbors,
p. 175; For map, see Lindop,
Understanding Lat. Am., p. 294.

role-play a discussion between two
who are discussing the demand for ni-
trogen purposes, mining techniques, land
they are using, and the problems
finding water for the workers. Let them
discuss about the prospects for profits in
the fact that this area was the only
world which produced such nitrates.

Pendle, The Land and People
of Chile, pp. 51-52.

-15-

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

4. Silver was s
It was found
miners from
in the oasis

5. Copper mining
importance i

D. There was just
settlement in S

1. The Araucani
life and had
from the Nor
However, the
riculture ra
ricultural c

2. Some warfare
settlements
coast.

-15-

4. Silver was shipped out from several ports. It was found difficult to feed all of the miners from the food which could be grown in the oasis areas,

5. Copper mining had just begun to be of importance in the desert in 1850.

D. There was just beginning to be some European settlement in Southern Chile.

1. The Araucanians had modified their way of life and had adopted some Spanish customs from the North and become more sedentary. However, they had adopted shifting agriculture rather than more permanent agricultural communities.

2. Some warfare still took place with white settlements which had begun along the coast.

20. Tell pupils that silver was discovered on the desert before 1832. Read aloud James' description of the effects of this discovery on the Copiapo area and production of silver in this part of the 19th century as compared to production of copper. Discuss: Why would it have been more difficult at that time to provide food and water for all of the people who wanted to live on the desert than it would be today?

Se
p.

21. Use a map to show pupils the location of some of the copper deposits. Ask: What ports would be the likely choices to which to transport the copper for shipping abroad? Would such cities be likely to set up their own smelting plants to process the copper? Why or why not?

Li
Am
Se
p.

Tell pupils the period in which copper began to be important. Perhaps give them figures for production in this period so that pupils can compare the importance of copper production with that of silver and nitrate production.

22. Have pupils read a brief description of Southern Chile in 1870. Discuss: How would you compare this region with the others in terms of the amount of change which had taken place since the Spanish arrived in Chile? Can you think of any possible explanations?

Li
Am

...ver was discovered on the desert be-
...ud James' description of the effects
...the Copiapo area and production of
...of the 19th century as compared to
... Discuss: Why would it have been
...at time to provide food and water
...e who wanted to live on the desert
...ay?

See James, Latin America,
p. 258.

...pils the location of some of the cop-
...What ports would be the likely
...transport the copper for shipping
...cities be likely to set up their own
...process the copper? Why or why not?

Lindop, Understanding Latin
America, p. 294.
See also James, Latin America,
p. 258.

...od in which copper began to be im-
...ve them figures for production in this
...s can compare the importance of cop-
...that of silver and nitrate produc-

...rief description of Southern Chile
...How would you compare this region
...terms of the amount of change which
...e the Spanish arrived in Chile? Can
...sible explanations?

Lindop, Understanding Latin
America, pp. 306-307.

-17-

3. Beginning in 18
to move into th

a. German immigr
coastal area
coming by 18
built roads
tural commu

b. Settlers of
region rema

S. Generalizes from data.

IV. We look at Chile tod

A. About 65 per cent
Indian and Spanis
heredity a little
mainder of the po
per cent of those
5 per cent of tho

S. Generalizes from data.

B. The most intensiv
is still the "Gen

1. Today the land
large estates
yards.

S. Sets up hypotheses.

2. This central r
of the major c

S. Tests hypotheses against data.

a. It is to th
people are

b. The result
Sao Paulo;
nomic oppor

-17-

3. Beginning in 1850 some Europeans began to move into the Southern region.
 - a. German immigrants began to come to coastal areas, but they had stopped coming by 1860. They cleared forests, built roads, and established agricultural communities.
 - b. Settlers of Spanish descent in this region remained very few.

IV. We look at Chile today.

- A. About 65 per cent of the people are of mixed Indian and Spanish blood, with the Spanish heredity a little more pronounced. The remainder of the population is made up of 30 per cent of those of pure Spanish descent and 5 per cent of those of pure Indian descent.
- B. The most intensively-developed part of Chile is still the "Central Valley" of middle Chile.
 1. Today the land is still held mainly in large estates used for grazing and vineyards.
 2. This central region is also the site of most of the major cities.
 - a. It is to these cities that most of the people are rushing.
 - b. The result is much the same as it is in Sao Paulo: overcrowding and tenuous economic opportunities.

data.

23. Put figures on the board for the present racial composition of the population of Chile. Ask: How does the population of Chile compare with that of Argentina? Peru? the Brazil basin area? Sau Paulo? See

24. Have a pupil read and report on life in a hacienda in the Central Valley. Afterwards ask: How does life on a hacienda compare with life on one of the large estates in Argentina? See
Lat
Or s
U.S.
pp.

25. Project a photo of Valpariso. What can pupils tell about the advantages of this city as a port? From what they have studied about Seattle, where would they expect to find the business district and manufacturing area? the homes? Linc
Amer
and
For
Sant
303.

Now have a pupil check against a description. Ask: Why do you think this city has grown so large?

Have a pupil investigate the city of Santiago and tell the class about it.

for the present racial composition of Chile. Ask: How does the life there compare with that of Argentina? Rio de Janeiro? Sao Paulo?

See James, Latin America.

Report on life in a hacienda in Mexico. Afterwards ask: How does life on a hacienda compare with life on one of the large estates in the U.S.?

See Lindop, Understanding Latin America, pp. 299-301
Or see Whittemore, et. al., U.S., Canada, Latin America, pp. 55-57 (of part on L. Am.).

Compare the life in this city as a port? From what part of the city? From the business district and manufacturing district?

Lindop, Understanding Latin America, p. 298. (Picture and description.)
For a brief description of Santiago, see Lindop, pp. 301-303.

Compare the life in this city against a description. Ask: How has the city grown so large?

Compare the life in the city of Santiago and tell the

- G. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, etc.
 - S. Sets up hypotheses.
 - S. Tests hypotheses against data.
 - G. Man uses his physical environment in terms of his cultural values, perceptions, and levels of technology.
 - G. The significance of location depends upon cultural developments within and outside of a country or region.
- c. Again, the basic efficiency in and much needed
 - 3. This region contains industrial centers of greatest variety
 - C. The main activities are still mining activities still live much as in sources.
 - 1. The nitrate industry 1870.
 - a. The decline caused by reclaiming perfected.
 - b. Natural nitrate for some purposes.
 - c. Approximately 100,000 tons of iodine is made in this desert from

-19-

c. Again, the basic problem appears as inefficiency in agricultural techniques and much needed land reform.

3. This region contains nearly all of the industrial centers of Chile as well as the greatest variety of needed commodities.

produced better
in another because
ces, transporta-
s to resources,
people's skills,

C. The main activities in the Atacoma desert are still mining activities, although some Indians still live much as in the past, near water resources.

gainst data.

cal environment
ltural values,
evels of tech-

1. The nitrate industry is much smaller than in 1870.

a. The decline came in 1928 when the process of reclaiming nitrogen from the air was perfected.

b. Natural nitrates are still superior for some purposes.

c. Approximately three-fourths of the world's iodine is made from the same material in this desert from which nitrates are made.

f location de-
l developments
of a country

26. Have a report on the iron and steel plant at Concepcion, one of the few such enterprises in all of South America. What basic raw materials are needed for this industry? What prime and absolutely essential mineral do most South American countries generally lack despite the continent's wealth in hundreds of other valuable resources? Why is this mineral so important to economic and industrial development. Lindop, pp. 311
27. Give pupils figures on the decline of nitrate production. Then ask: Why do you think nitrate mining should have declined so much in importance? Let pupils make guesses. They may decide that resources have been exhausted, etc. Have them read to find out the answer. See Jam 261. (A)
28. Ask: Why do you think any nitrates are mined any more? Explain their advantage over the synthetic nitrates in the sugar beet industry. Also explain the use of the material for making iodine. Pendle, Chile,

Iron and steel plant at Concepcion, enterprises in all of South America. What resources are needed for this industry? Why is iron so essential a mineral do most South American countries generally lack despite the continent's abundance of other valuable resources? Why is iron so important to economic and industrial development?

Lindop, Understanding Lat. Am., pp. 311-312.

Why has there been a decline of nitrate production? Why do you think nitrate mining should have lost its former importance? Let pupils make guesses. Why have the nitrate sources have been exhausted, etc. Discuss and give out the answer.

See James, Lat. Am., pp. 260-261. (Adapt for pupils.)

Why are no more nitrates mined any more? Why do you think the synthetic nitrates in Chile are so important. Also explain the use of the nitrates in Chile.

Pendle, Land and People of Chile, p. 58.

- S. Generalizes from data.
- S. Applies previously-learned concepts and generalizations to new data.
- G. Machinery and power make possible greater production per person and lower cost per unit.
- G. Man uses his physical environment in terms of his cultural values, perceptions, and levels of technology.
- G. Climate sets up limitations upon man's activities, given a specific level of technology, but man has learned to overcome many of the earlier limitations.
- S. Draws inferences from pictures.
- S. Uses atlas index to locate places.

- S. Generalizes from data.
- G. Climate sets up limitations upon man's activities, given a specific level of technology, but man has learned to overcome many of the earlier limitations.

2. At present the
copper, iron,

-21-

ed concepts
new data.

e possible
person and

vironment
values,
of tech-

ns upon
specific
man has
of the

ctures.

te places.

2. At present the Atacama is being worked for copper, iron, and coal.

ons upon
a specific
t man has
y of the

29. Now project pictures showing the mining of nitrates today. Ask: What changes have taken place? Read aloud a description of modern mining methods. What would these techniques do to the cost of mining?
30. Tell the class that most of the big nitrate companies are now owned by the U.S. Ask: How would they get people to go to live in this region? Where could they get water?
Describe to the class what the companies have done.
31. Project a photo of the port of Antoffgasta on the Atacama desert. Ask: What does this photo show about the land? Have pupils locate the port on the map, using the atlas index. Where do pupils think they might get water for the town?
32. Have several pupils look up and report on mineral products of each of Chile's major regions. Ask: Which region has the greater share? Which brings in the most money from exports to other countries?

Where is the mining of nitrates taken place? Read aloud the methods. What would these methods be?

Pendle, Land and People of Chile, pp. 49, 52. For description, see p. 52.
Chile in Pictures, pp. 55-57.

Which of the big nitrate companies are the largest? How would they get people to work there? Where could they get water?

Pendle, Land and People of Chile, p. 58.

What have the nitrate companies done?

What is Antofagasta on the Atacama? Show about the land? Use the map, using the atlas to show where they might get water for

Pendle, Land and People of Chile, ff. 48.
Chile in Pictures, p. 35.

Read the report on mineral production in different regions. Ask: Which region is the richest in the most countries?

Textbooks.

- G. Man uses his physical environment in terms of his cultural values, perceptions, and levels of technology. a. By far Chile of the

- S. Interprets pie (circle) graphs. b. Only 5%

- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology. 3. The perman tied close have chang to Chile.

- G. A number of factors -- climate, surface features, natural resources, accessibility, and history -- affect settlement and growth patterns; D. Southern Chil of the countr

- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology. 1. The popula one millic except for southern a
 - a. Populat
 - b. A large born th
 - c. The big the arm firm co

-23-

environment
al values,
of technol-

a. By far the most important mineral to Chile is copper; copper makes up 60% of the country's export value.

graphs.

b. Only 5% of Chile's workers are in mining.

environment
al values,
of technol-

3. The permanent Indian settlements are still tied closely to the sources of water. They have changed little since the Spanish came to Chile.

climate,
al re-
and history
and growth

D. Southern Chile may be called the pioneer area of the country.

1. The population of the region today is over one million. Most of the region is occupied, except for some of the still heavily forested southern areas.

environment
al values,
of technol-

a. Population densities are low.

b. A large proportion of the people were not born there.

c. The big settlement push began in 1883 when the army was sent into the area to get firm control over the Indians.

33. Have a group report on Chile's copper industry, one of the most important sources of income for the country. This could be combined with a display based on the many uses of this important metal. Project photos of a copper mine in the desert.
34. Show the class a pie graph which you have made of the percentage of Chile's workers who are engaged in mining.
35. Have a "dialogue" between two groups of students. One group should take the role of European or American mining experts. The other group should portray Indians who live permanently in the Atacama region. Ask them to discuss their outlook on life in the Atacama region.
36. Project a population density map. How does the southern region compare with the other two in terms of population? Give pupils figures on both total population in region and the proportion of Chile's population found in this region (about one-seventh). Point out that a large number of these people were not born in the region. Review reasons why people hesitated to settle there earlier. Now tell them about the use of the army to quell the Indians.

Chile's copper industry, one of the sources of income for the country, with a display based on the many uses of the metal. Project photos of a cop-

Pan Am. Union, Copper, pp. 3-10; Pendle, Land and People of Chile, ff. p. 32; for teacher use: Highsmith, Case Studies in World Geography, pp. 132-138.

graph which you have made of the workers who are engaged in mining.

Divide the class into two groups of students. One group of European or American miners and the other group should portray Indians who lived in the Atacama region. Ask them to describe the life in the Atacama region.

Discuss population density map. How does the South American population compare with the other two in terms of population figures on both total population and population density (one-seventh). Point out that a large number of people were not born in the region. Discuss the reasons why people hesitated to settle there early on and the use of the army to quell

James, Lat. Am., p. 273 (maps). Deasy, et.al., World's Nations, p. 258.

2. Agr
tha

S. Draws inferences from pictures. a.

G. Some things can be produced better in one place than in another because of climate, topography, resources, transportation routes, access to resources, access to markets, people's skills, landforms, etc.

S. Sets up hypotheses. b.

S. Tests hypotheses against data.

G. Some things can be produced better in one place than in another because of climate, resources, transportation routes, access to resources, access to markets, people's skills, landforms, etc.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology. c.

-25-

2. Agriculture is more important in this region than is lumbering.

a. The emphasis is upon grazing, with only about 20 per cent of the land being used to raise food crops.

1) The area is important for grazing.

2) The region produces an important share of the country's wheat.

3) Other crops include potatoes, oats, apples, and hay.

b. Although there is a large forest reserve, lumbering is not an important business.

c. The Southern Region is still an area of potential growth.

37. Have a pupil present a report comparing life in the cities of central Chile and life in the southern forest region. Discuss the south as a "pioneer" area.
38. Project a picture showing sheep grazing in the southern region. Ask: What does the picture show about the physical relief in this region? Why would this be a good grazing region?

Have a pupil investigate and report on the sheep-raising industry in Southern Chile.

39. Ask: What did you learn earlier about the natural vegetation in this region? What would you expect to be one of the chief ways of making a living? Now point out that lumbering is not an important industry. Have pupils try to figure out why this might be so. Then read aloud statements summarizing the reasons why there is so little lumbering as compared to herding. Discuss the pupils' hypotheses in the light of this data.
40. Discuss: How do you think the region of southern Chile could be developed economically? (e.g. What might happen to lead people to engage in lumbering? How else might such an area increase its economic growth?) Perhaps look at photographs once more to consider the possibilities of increasing the tourist industry? Ask: What is needed besides scenery such as this to build a tourist trade? Point out that oil use decreased during the 1940's in north-

ort comparing life in the
d life in the southern forest
as a "pioneer" area.

Gray, Exploring Am. Neighbors,
pp. 178-79, 183.

sheep grazing in the southern
he picture show about the phy-
n? Why would this be a good

Lindop, Understanding Lat. Am.,
p. 308 (picture) 309 (account).

nd report on the sheep-raising

arlier about the natural vege-
at would you expect to be one
g a living? Now point out that
ant industry. Have pupils try
nt be so. Then read aloud
reasons why there is so little
erding. Discuss the pupils'
this data.

Lindop, Understanding Lat. Am.,
pp. 308-9; James, Lat. Am.,
p. 269.

the region of southern Chile
cally? (e.g. What might happen
n lumbering? How else might
conomic growth?) Perhaps look
consider the possibilities of
ustry? Ask: What is needed
s to build a tourist trade?
ased during the 1940's in north-

- G. The world is a community of inter-dependent countries. F. With not h
- G. Specialization of countries makes for interdependence. 1. Al Ch
- G. Diversification of production makes a company or a region less dependent upon price fluctuations for one product or upon the supply of specific resources. a.
- S. Gains information by studying films. b.
- G. The power to allocate resources is important to the power to control what and how much will be produced. c.

- G. The organizational structure of the total economy or of any large section of it (such as agriculture) affects efficiency of production and output. 2. Be ag a. b.



munity of inter-
s.

countries makes
e.

production makes
ion less dependent
tions for one prod-
pply of specific

by studying films.

ate resources is
ower to control
will be produced.

structure of
or of any large
(h as agriculture)
of production

F. With a variety of resources, a country may still not have a good economic balance.

1. Although a predominant supplier of minerals, Chile's economy has not been stable.

a. There is a general instability of the population dependent on mining.

b. Foreign trade dominance by copper and nitrates leaves Chile almost powerless to control internal commercial efforts -- the nitrate business is owned in London; the copper business mostly in New York.

c. Since most of the government revenues have come from export taxes on copper and nitrates, the whole structure of the economy rests on an unstable level.

2. Because of an outmoded land-holding system, agriculture is inefficient.

a. Despite its considerable area of arable land, Chile is a net importer of food.

b. One indication of Chile's agricultural situation is apparent when we see that although the country produces fertilizer for export, very little is used domestically.

ern Tierra del Fuego. How might such a deficiency affect the area?

41. Tell pupils that Chile has had some bad times for workers and employers. (Define what you mean by such a statement, or ask pupils to try to define.) Ask: Can you think of any reasons for this? What problems must have arisen when nitrate production was reduced greatly? What would happen if Chile couldn't sell as much copper as before? (Examine a table on Chile's exports, and discuss the probable effect if copper exports were cut in half.) What would happen if the price of copper went down greatly? (Give pupils figures on the loss to Chile when the price of copper drops one cent.)
42. Show the film, Chile's Copper -- Mining and Refining in the Atacama, to emphasize the importance of this metal to Chile's economy. Point out also that most of the ownership lies outside the country. Ask: How can this be a problem in planning economic development?
43. Show the film Chilean Hacienda, which characterizes one of Chile's major problems -- food supply. Most of the best land in Chile, as in other South American countries, is held in large landed estates. Not enough of the necessary food crops are grown.

How might such a deficiency af-

e has had some bad times for workers
ne what you mean by such a statement,
to define.) Ask: Can you think of
? What problems must have arisen when
as reduced greatly? What would happen
l as much copper as before? (Examine
ports, and discuss the probable effects
re cut in half.) What would happen if
went down greatly? (Give pupils figures
when the price of copper drops one cent.)

Copper -- Mining and Refining in the
the importance of this metal to Chile's
also that most of the ownership lies out-
k: How can this be a problem in plan-
ent?

Film: Chile's Copper --
Mining and Refining in the
Atacama, Harry Grubbs
Dist. IFB.

Hacienda, which characterizes one of
s -- food supply. Most of the best
other South American countries, is
estates. Not enough of the necessary

Film: Chilean Hacienda.
Distributed by Int'l.
Film Bureau.

-29-

S. Draws inferences from a comparison of different map patterns of the same area.

3. Although Chile's transportation system is better than that in many Latin American countries, it needs expansion.

44. Have students compare transportation maps with those of physical features and population density. Where are the largest population clusters? What transportation problems does Chile have? What correlations can be made with these and other maps? These are only a few of the possible questions such an exercise can elicit.

-30-

re transportation maps with those of
nd population density. Where are the
clusters? What transportation prob-
e? What correlations can be made
r maps? These are only a few of the
such an exercise can elicit.

For a population map, see
James, Lat. Am., p. 273.
For a map of railroads, see
James, p. 52, or Deasy, et.al.,
World's Nations, p. 257.

BIBLIOGRAPHY ON CHILE

I. For use by pupils

Bianchi, Lois. Chile in Pictures. New York: Sterling Publishing Co., 1965.

Borchert, John and Jane McGuigan. Geography of the New World. Chicago: Rand McNally, 1961.

Gray, William. Exploring American Neighbors. Chicago: Follett, 1960.

Lindop, Edward with Ernest Tiegs and Fay Adams. Understanding Latin America. Boston: Ginn, 1966 ed.

Pan American Union. The Araucanians. Washington, D.C. Pan American Union. (Pamphlet).

Pan American Union. Copper. Washington, D.C.: Pan American Union (Pamphlet).

Pendle, George. The Land and People of Chile. New York: Macmillan, 1960.

Whittemore, Katheryne, Melvina Svec, and Marguerite Uttley. U.S., Canada, Latin America. Boston: Ginn, 1966.

II. For u

Deasy
Nat
195

Highs
Wor
CI

James
Yor

GEOGRAPHY ON CHILE

II. For use by teacher

ctures. New
ng Co., 1965.

Deasy, George F., et.al.. The World's
Nations. Philadelphia: Lippincott,
1958.

Guigan. Geog-
Chicago:

Highsmith, Richard, et.al., Case Studies in
World Geography. (Paperback) Englewood
Cliffs: Prentice-Hall, 1961.

ng American
ett, 1960.

James, Preston. Latin America. New
York: Odyssey Press, 1959.

Tiegs and
Latin Amer-
ed.

caucanians.
merican Union.

. Washington,
(Pamphlet).

and People
Tlan, 1960.

ina Svec,
S., Canada,
inn, 1966.

1683
C1

Grade Five
Unit VII: LATIN AMERICA
SUB-UNIT : CASE STUDY ON CUZCO

RESOURCE UNIT

These materials were developed by the Project Social Studies Curriculum Center of the University of Minnesota under a special contract with the Cooperative Research Division of the United States Office of Education. (Project HS-045).

1968

OBJECTIVES

This unit should make progress toward developing the following

GENERALIZATIONS

1. Location is a position which sets a phenomenon at a specific point on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude.
2. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, ocean currents, prevailing winds, and physical features which block winds from certain directions.
 - a. Temperature is affected in part by elevation; air is cooler at higher elevations than at lower elevations if latitude and distance from the sea are the same.
 - b. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.
3. Rainfall is affected by distance from bodies of warm water, ocean currents, wind direction, temperature, and physical features. It is also affected by elevation, latitude, longitude, and physical features.
4. Grass will grow in areas where it is cold for trees.
5. Man uses his physical environment to his advantage through his cultural values and technology.
 - a. A number of cultural patterns, natural resources, and history are related to physical patterns.
 - 1) Men carry their culture with them when they move from one place to another. This is true in mountainous areas where climate is different from the lowlands.
 - b. The topography of an area affects its cultural patterns, giving rise to different types of human activities.
 - 1) Terracing is a common method of agriculture on steep slopes to prevent soil erosion.
 - c. Irrigation is a common method of agriculture on land which is dry.

OBJECTIVES

Progress toward developing the following:

ature, and physical features which block winds carrying moisture.

on which sets
specific point
ce, usually
tract grid and
of latitude and

4. Grass will grow in some areas which are too cold for trees to grow.

5. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

ted by the dis-
or, elevation,
ater bodies, o-
iling winds, and
ich block winds
ons.

a. A number of factors--climate, surface features, natural resources, accessibility, and history--affect settlement and growth patterns.

ected in part
Is cooler at
than at lower
itude and dis-
a are the same.

1) Men carry on more activities on plains than in hills and more in hills than in mountains except in the low latitudes where climate at lower elevations leads people to seek cooler areas in the highlands.

seasonal differ-
d in part by
equator; tem-
re smaller near
further away

b. The topography of a region may present limitations, given a specific level of technology.

1) Terracing enables man to grow crops on steep slopes and also slows down water erosion.

by distance
water, ocean
tion, temper-

c. Irrigation makes it possible to grow crops on land which otherwise would be too dry.

- 6. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.
- 7. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.
- 8. Ways of living differ from one society to another.
 - a. People in different societies differ as to how they expect people to act, and as to what they think good and bad.
- 9. Although culture is always changing, certain elements or traits may persist over long periods of time.
 - a. Some values are conducive to change; some make planned change difficult.
 - b. Change in one aspect of culture brings about changes in other aspects.
- 10. Education affects the quality of labor and so labor productivity.
- 11. Tools and machines may bring about

SKIL

1. S

2. I

3. D

4. U

5. I

k

6. L

m

7. A

9

8. T

ATTI

1. Ap

ti

2. Is

cu

te

l

3. Is

so



greater output per worker.

SKILLS

1. Sets up hypotheses.
2. Interprets graphs.
3. Draws inferences from tables.
4. Uses atlas index to locate places.
5. Interprets map symbols in terms of the map key.
6. Looks for points of agreement and disagreement among different sources of information.
7. Applies previously-learned concepts and generalizations to new data.
8. Tests hypotheses against data.

ATTITUDES

1. Appreciates and respects the cultural contributions of other peoples.
2. Is sceptical of the finality of knowledge; considers generalizations and theories as tentative, always subject to change in the light of new evidence.
3. Is committed to the free examination of social attitudes and data.

OBJECTIVES

-3-

OUTLINE OF CO

- S. Uses atlas index to locate places.
- G. Location is a position which sets a phenomenon at a specific point on the earth's surface, usually designated by an abstract grid and described in terms of latitude and longitude.
- S. Applies previously-learned concepts and generalizations to new data.
- S. Sets up hypotheses.
- S. Tests hypotheses against data.
- G. Temperature is affected by the distance from the equator, elevation, distance from warm water bodies, ocean currents, prevailing winds, and physical features which block winds from certain directions.
- G. Temperature is affected in part by elevation; air is cooler at higher elevations than at lower elevations if latitude and distance from the sea are the same.
- G. Temperature and seasonal differences are affected in part by distance from the equator; temperature ranges are smaller near the equator than further away from it.

- I. The Andean the region in the sou separated gorges.
 - A. Cuzco i sea lev difficult they ar altitude of agric
 - B. Cuzco is of its variatio of year greater from onc

-3- OUTLINE OF CONTENT

locate places.
on which sets
specific point
ce, usually
tract grid
ms of latitude

learned concepts
to new data.

inst data.

ted by the
uator, eleva-
warm water
ts, prevailing
features which
tain directions.

ted in part: by
oler at higher
ower elevations
ance from the

onal differ-
n part: by
uator; tem-
smaller near
ther away

1. The Andean Indian culture can be illustrated by the region around Cuzco in Peru. Cuzco is located in the southern highlands of Peru in a broad basin separated from other valleys and basins by deep gorges.
 - A. Cuzco is at an elevation of 11,380 feet above sea level; such elevations make it fairly difficult for people to work hard, particularly if they are unaccustomed to these altitudes. The altitudes also affect temperatures and so types of agricultural production.
 - B. Cuzco is not far from the equator but because of its height has low temperatures, with little variation from one month to another, one time of year to another; temperature variations are greater from one time of day to another than from one month to another.

TEACHING PROCEDURES

-4-

1. Have pupils use an atlas index to locate Cuzco and note its latitude. What would they expect temperatures to be like? Now have them examine a temperature chart. How can they explain the temperatures which actually exist in this area?

-4-

MATERIALS

to locate Cuzco and note
expected temperatures to
a temperature chart. How
places which actually exist

Atlas.
Map of South America and of
Peru.
"Student Almanac."

- G. A number of factors -- climate, surface features, natural resources, accessibility, and history -- affect settlement and growth patterns.
- G. Men carry on more activities on plains than in hills and more in hills than in mountains except in the low latitudes where climate at lower elevations leads people to seek cooler areas in the highlands.
- S. Applies previously-learned concepts and generalizations to new data.
- S. Sets up hypotheses.
- S. Tests hypotheses against data.
- G. Rainfall is affected by distance from bodies of warm water, ocean currents, wind direction, temperature, and physical features which block winds carrying moisture.

C. Cuzco's p
for agric
it is gre

rs -- climate,
natural resources,
history -- affect
with patterns.

activities on
is and more in
tains except in
where climate at
leads people to
in the highlands.

learned concepts
to new data.

- C. Cuzco's precipitation is not really adequate for agriculture without irrigation; however, it is greater than on the coast.

gainst data.

ed by distance
m water, ocean
ection, temp-
cal features
carrying mois-

2. Have pupils examine a physical map and a population map of Peru. Ask: Why do you think so many of the people live in the highlands? If necessary, have pupils look once more at the location of Peru in relation to the equator and at a temperature map.

3. Have pupils use a physical map to try to predict rainfall in Peru. First, have them look at the coastal region, then the highlands area, and then the Amazon side of the Andes. They should check their hypotheses against a rainfall map.
 - a. Ask: Why do you think Peru's coast is so dry when it is close to a large body of water? Have a pupil read and report on the Peru current, or review from the introductory section on Latin America.
 - b. Ask: Why would the highlands area have more rainfall? Have pupils suggest reasons before someone checks in geography text.

-6-

ne a physical map and a population map
hy do you think so many of the people
ands? If necessary, have pupils look
location of Peru in relation to the e-
emperature map.

Physical map on p. 170 of
James, Lat. Am.
Population map on p. 177 of
James.

physical map to try to predict rainfall
have them look at the coastal region,
s area, and then the Amazon side of the
ld check their hypotheses against a

See above or use a wall map.
For a rainfall map of S. Am.,
see James, Lat. Am., p. 40 or
Lindop, Understanding Lat. Am.,
p. 229 or Whittemore, et.al.,
U.S., Canada, Lat. Am., Pt. II,
p. 28.

ou think Peru's coast is so dry when it
large body of water? Have a pupil read
the Peru current, or review from the in-
tion on Latin America.

Lindop, Understanding Latin
America, pp. 259-60.

d the highlands area have more rainfall?
uggest reasons before someone checks in a

-7-

- S. Sets up hypotheses.
- S. Tests hypotheses against data.
- G. Grass will grow in some areas which are too cold for trees to grow.
- S. Interprets map symbols in terms of the map key.
- G. Cities are likely to grow up if they perform functions which are needed by the surrounding community or for a larger functional region.
- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
- G. Ways of living differ from one society to another.
- S. Looks for points of agreement and disagreement among different sources of information.
- D. Most of grass and
- E. There are gion not are found
- II. We look at the center of
- A. About 13 areas of

-7-

SOS.

s against data.

in some areas which
r trees to grow.

symbols in terms

ly to grow up if
nctions which are
urrounding commun-
rger functional

ysical environment
cultural values,
d level of technol-

differ from one so-
r.

s of agreement and
ong different sources

D. Most of the highlands are covered by bunch
grass and scrub bushes.

E. There are deposits of gold and coal in the re-
gion not too far from Cuzco; other minerals
are found further north in the highlands.

II. We look at Cuzco around 1450-1500 when Cuzco was
the center of the Inca Empire.

A. About 13 million Indians lived in the highland
areas of the Andes in 1522.

5. Show picture of the highlands area to illustrate soil and vegetation. What kind of vegetation do they see? Why aren't there more trees? What kind of crops might be grown here? Set up hypotheses about crops to test later. Test hypotheses about vegetation against a vegetation map.
6. Show a minerals map of Peru or of the highlands area. Have pupils locate some of deposits close to Cuzco. Ask: What might these deposits mean for any town which might grow up at Cuzco?
7. Show the filmstrip, The Incas, which relates specific aspects of the Inca culture. Discussion during this strip should center on the things which are apparently most important to the Inca people: agriculture, social structure, religion, etc. Always ask for comparisons with our way of life.
8. Have pupils read about life in Peru under the Incas. Or have a group of children give a report. Compare the findings with the filmstrip which the class has just seen.

lands area to illustrate soil and vegetation do they see? Why? What kind of crops might be raised about crops to test later. Discussion against a vegetation

Vegetation map in James, Lat. Am., p. 174; Lindop, Understanding Lat. Am., p. 246; Gray, Exploring Am. Neighbors, p. 161.

of the highlands area. Deposits close to Cuzco. Deposits mean for any town which

Simple map in Gray, Exploring Am. Neighbors, p. 156. See also Kohn and Drummond, World Today, p. 272 and James, Lat. Am., p. 176.

Incas, which relates specific aspects. Discussion during this strip which are apparently most important: agriculture, social structure. Ask for comparisons with our

Filmstrip: The Incas.

life in Peru under the Incas. Or give a report. Compare the findings which the class has just seen.

Bleeker, The Incas; Burland, Finding Out About The Incas; Pan American Union, The Incas; Stirling, et.al., Indians of the Americas, chs. 13-15.; Baumann, Gold and Gods of Peru; Gray Exploring Am. Neighbors, pp. 149-153.

A. APPRECIATES AND RESPECTS THE CULTURAL CONTRIBUTIONS OF OTHER PEOPLES.

B. The Incas had made possible terracing.

G. Terracing enables man to grow crops on steep slopes and also slows down water erosion.

G. Irrigation makes it possible to grow crops on land which otherwise would be too dry.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

S. Tests hypotheses against data.

1. The Incas had made possible terracing but also had made possible the use of beans.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

2. The Incas had made possible the use of alpacas and for wool.

A. APPRECIATES AND RESPECTS THE CULTURAL CONTRIBUTIONS OF OTHER PEOPLES.

3. The Incas had made possible the use of groups in the Andes; the foot runner empire.

G. The topography of a region may present limitations, given a specific level of technology

-9-

B. The Incas had developed intensive agriculture made possible by extensive irrigation and terracing.

1. The Incas raised maize as their basic crop but also grew potatoes, a few vegetables such as beans and squash, and some grain.

2. The Incas had domesticated the llama and the alpaca and used them as beasts of burden and for food and wool.

3. The Incas had conquered many other Indian groups in the Andes and to the west of the Andes; they built important roads for their foot runners to the major areas of their empire.

-19-

During the discussion, be sure to emphasize the terracing, irrigation, and type of agriculture and the difficulty of terracing without modern tools.

Lists crops as pupils report them. Check back against hypotheses about possible crops. Ask: Does this list support any of your earlier hypotheses?

9. Project a picture of a llama. Have a pupil tell the class about the animal and how it can be used even today.
10. Read aloud a brief description of Inca roads and project photos of them. Ask: How easy would it be to build these roads today? How easy would it have been without modern machinery and tools?

-19.

to emphasize the terracing
cultures and the difficulty of

hem. Check back against
os. Ask: Does this list
hypotheses?

Have a pupil tell the
how it can be used even to-

Lindop, Understanding Latin
Am., pp. 269-70.

of Inca roads and project
why would it be to build
could it have been without

Pan Am. Union, Incas, pp. 16-17.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

S. Sets up hypotheses.

S. Tests hypotheses against data.

A. IS SCEPTICAL OF THE FINALITY OF KNOWLEDGE; CONSIDERS GENERALIZATIONS AND THEORIES AS TENTATIVE, ALWAYS SUBJECT TO CHANGE IN THE LIGHT OF NEW EVIDENCE.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

III. We look at

A. The te
clined
1796.

B. There v
this de

1. The
stit
the

2. The
lage
weal
the
to w
Most
but

3. The
find
mean
raci
died
cult

4. The
stoc
intr
tain
brou
crop
for

-11-

III. We look at Cuzco in 1796.

- A. The total Indian population in the Andes declined from 13,000,000 in 1522 to 700,000 in 1796.
- B. There were probably a number of reasons for this decline.
1. The Spanish conquered the Incas and substituted their own domination for that of the former Inca rulers.
 2. The Spanish parcelled out the land and villages in the form of *encomiendas*; this gave wealthy Spaniards the use of the land and of the Indians on it. The Indians either had to work for the landlord or pay him rent. Most of the owners did not live on the land but lived in cities instead.
 3. The Spanish forced the Indians to help them find minerals and to work in mines; this meant that the irrigation ditches and terracing were neglected. Also many Indians died doing this work. The intensive agriculture declined.
 4. The Spaniards were more interested in livestock production than in growing crops. They introduced cattle herding into the higher mountain grasslands. However, their actions brought a decline in the growing of food crops, and the cattle herding did not make up for the loss of food.

-12-

11. Have a pupil make a graph to compare the number of Indians in the Aztecs in 1522 (an estimate), with the estimate for 1796. What had happened to the population? What might explain this decline?

Read aloud a brief description of the factors thought important by historians. Have pupils discuss their hypotheses in the light of this data.

James, Latin Am., pp. 166-169.

- G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.
 - S. Interprets graphs.
 - G. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.
 - G. Although culture is always changing, certain elements or traits may persist over long periods of time.
 - G. People in different societies differ as to how they expect people to act and as to what they think good and bad.
- 5. The Spanish areas and neglected Indian cities.
 - IV. We look at Cuzco
 - A. Today the Indians have risen to 16,000, about 60,000 people.
 - B. The total highland population is about 60 percent mestizo, and 10 percent Indian descent.
 - C. In the main, Indians are not locational.
 - 1. The Indians are different from the Spaniards. They have to fit in with the Spaniards and rituals.

-13-

5. The Spanish began to build up the coastal areas and parts along the Pacific. They neglected Cuzco and most of the other highland cities.

ical environment
cultural values,
level of technol-

IV. We look at Cuzco today.

- A. Today the Indian population of the Andes has risen to 16,000,000; Cuzco itself is a city of about 60,000 people nestled in a valley.

- B. The total highlands population is made up of about 60 percent of pure Indians, 35 percent mestizo, and 10 percent of people of Spanish descent.

ea of one or more
res. The core
homogeneous, but
tional zones where
awn between dif-

is always changing,
or traits may per-
riods of time.

- C. In the main, Indians are isolated from the rest of the national territory. This isolation is not locational alone.

nt societies differ
ect people to act
ey think good and

1. The Indians have adopted the Catholic religion from the Spanish, but they have modified it to fit into their older religious beliefs and rituals.

12. Show picture of Cuzco and of Cuzco valley. Ask: Why do you think the people built in the valley rather than up in the high plateaus?
13. Put the population estimate for Andes Indians today on the chalkboard. Compare with the graph made in activity #11. Ask: What has happened to the population? Now show figures for the population of Cuzco alone. Compare with the population of some other towns which pupils have already studied.
14. Make a pie graph to show the composition of the highlands population. Be sure to teach pupils how to read this graph. Now have pupils look at a map of racial composition of S. America. Ask: What group makes up the majority of people in coastal Peru? Do you think these two parts of Peru should be considered different regions?
15. Have students read a textbook, or other source, concerning the highland region which includes a description of the ways of life, customs, language, habits, and traditions of the Andean Indians. Or have a pupil give an oral report on this topic. Discussion should follow on what difficulties can be expected in bringing about changes in ways of living. In what ways would the Andean have to change in order to better "fit" into the

Valle
Inca
James
dop.
p. 21

James

Lindo
Am.,

- 14 -

Cuzco valley. Ask: Why do
the valley rather than up

Valley picture in Pan Am. Union,
Incas, p. 5; Cuzco picture in
James, Lat. Am., p. 188 or Lin-
dop, Understanding Lat. Am.,
p. 247.

or Andes Indians today on
the graph made in activity
to the population? Now
on of Cuzco alone. Compare
other towns which pupils have

composition of the highlands
pupils how to read this
at a map of racial composi-
at group makes up the major-
? Do you think these two
dered different regions?

James, Latin America.

, or other source, concern-
includes a description of
language, habits, and tradi-
Or have a pupil give an
discussion should follow on
cted in bringing about
n what ways would the an-
to better "fit" into the

Lindop, Understanding Lat.
Am., pp. 270-72.

G. Man uses his physical environment in terms of his cultural values, perceptions, and level of technology.

2. Most of the office

3. Most of the or different Spanish d Spanish c no longer

4. Most of the subsisten

a. The In and pr and te that t been r

b. Indian the Eu and no in by llamas requir food p food c

-15-

l environment
ural values,
el of technol-

2. Most of the Indians cannot speak Spanish, the official language of the country.

3. Most of the Indians have a different dress or different social customs from those of Spanish descent. Those who adopted the Spanish customs of language and dress are no longer considered Indians.

4. Most of the Indians live in poverty under a subsistence type of agricultural economy.
 - a. The Indians continue to grow their crops and process products by the same tools and techniques used in early days, except that the irrigation and terracing have not been restored.
 - b. Indians now grow some crops introduced by the Europeans (such as barley and alfalfa) and now have domesticated animals brought in by the Spaniards as well as the Alpaca llamas. However, these additional animals require more pasture which produces less food per acre for herding than for raising food crops.

urban way of life.

Have one half of the class take the part of a city dweller in Lima, and the other half that of a highland Indian village member. Have students write "letters" to each other telling why they prefer their way of life. Read several of these in class. Differences within the country will be brought out.

For Lima standing
Gray, Exp
p. 154.

16. Show selected frames from the filmstrip, Life in Peru. It brings out the differences in the ways of life clearly and shows how little change has occurred in the life of the highland Indian compared to that of the city dweller. Compare again with our way of life, rural and urban.

Filmstrip

17. Compare the agricultural techniques and productivity of the Andean region today and under the Incas. Show the film, Farmers of the Andes: Plateau Agriculture. Or project a photo of Peruvian Indians still working the land with hand plows. Ask: How much would they be able to produce with such tools? With those of our own country? What might be done to improve agricultural conditions in the Andes? (Also show photos of primitive tools for spinning wool still in use.)

Gray, Exp
p. 156;
Lat. Am.

Film: Fa
Int'l. F

take the part of a city dweller
f that of a highland Indian vil-
s write "letters" to each other
their way of life. Read several
ences within the country will

For Lima, see Lindop, Under-
standing Lat. Am., pp. 263-64;
Gray, Exploring Am. Neighbors,
p. 154.

the filmstrip, Life in Peru.
ces in the ways of life clear-
ange has occurred in the life
pared to that of the city
th our way of life, rural and

Filmstrip: Life in Peru.

techniques and productivity of
d under the Incas. Show the
: Plateau Agriculture. Or
n Indians still working the
: How much would they be able
? With those of our own coun-
o improve agricultural condi-
o show photos of primitive
(still in use.)

Gray, Exploring Am. Neighbors,
p. 158; Lindop, Understanding
Lat. Am., p. 246.

Film: Farmers of the Andes,
Int'l. Film Bureau.

S. Draws inferences from tables.

c. The
of

1)

2)

G. A region is an area of one or more homogeneous features. The core area is highly homogeneous, but there are transitional zones where boundaries are drawn between different regions.

5. The And
looks
to the v

a. The
land

b. Alth
to t
mine

c. The
are
lang

A. IS COMMITTED TO THE FREE EXAMINATION OF SOCIAL ATTITUDES AND DATA.

d. The
the
trus
him.

e. The
spit

bles.

c. The Andean Indians have a very low level of living.

1) The Andean Indians have the highest death rates, lowest incomes, highest illiteracy rates, and shortest life expectancies in Peru.

2) Their food intake consists mainly of potatoes and barley and provides an average of only 700 - 1100 calories per day.

5. The Andean Indians live in a culture that looks inward; they remain unassimilated into the white culture of Peru.

a. Their loyalty extends only to their family, land, and village.

b. Although they may travel to a nearby town to trade or may take a seasonal job in a mine, they usually return to their village.

c. The few Spanish words they may have learned are soon forgotten, since the village language is the ancient Quechua or Aymara.

d. The Indians harbor deep-seated fears of the white man; in general they do not trust the outsider or even associate with him.

e. The Indians remain resistant to change despite their low level of living.

ne; or more
he core
us, but
ones where
ween dif-

EXAMINA-
AND DATA.

18. Give pupils figures to illustrate the level of living of Andean Indians. Compare with figures for the rest of Peru or of people studied earlier in other places.

19. Review what pupils have learned so far about how the Indians live as a sub-culture within Peru. What things do children think these Indians would consider most important? Would pupils still agree that this Andean part of Peru is a region which should be differentiated from the rest of Peru?

20. Have several children role-play a discussion among Peruvian Indians of the Highlands about what they think of the white man and of outsiders in general and about how they feel about changing their way of life. Afterwards, let pupils discuss the ideas brought out. Perhaps let several other children role-play a similar situation, if they think the Andean Indians would react differently.

- G. Education affects the quality of labor and so labor productivity.
- G. Tools and machines may bring about greater output per worker.

- G. Some values are conducive to change; some make planned change difficult.

V. The government to change the

A. Government assimilations.

- 1. Education
- 2. The Ind modern
- 3. The Ind needs to methods tion.

B. Cultural tr night".

- 1. Although dicated
- 2. It is di to a new
 - a. Chang and t of a to ma
 - b. The l land, a mea

- quality
produc-
- y bring
per worker.
- ive to
ned change
- V. The government faces serious problems in trying to change the way of life of the Andean Indians.
 - A. Government leaders must find ways of suitably assimilating the Indians into new environments.
 - 1. Education is the key focus.
 - 2. The Indian needs to be taught to use modern tools and to read and write.
 - 3. The Indian in the traditional village needs to be taught efficient agricultural methods in order to increase food production.
 - B. Cultural transitions do not occur "overnight".
 - 1. Although certain pilot projects have indicated success, the job is only beginning.
 - 2. It is difficult for the Indian to adjust to a new environment.
 - a. Changes in physical setting and diet and the shift from village life to that of a bustling town or city are difficult to make.
 - b. The Indian has a deep attachment to his land, even though it provides him but a meager harvest.

Now read aloud, or paraphrase, a description of the reaction of Andean Indians to outsiders and change.

21. Discuss: Should groups within a country be neglected while others prosper, even if they do not wish to change? Why or why not?

Have pupils assume that they would like to bring about changes. Have each pupil assume that he is the President of Peru. He should make a list of things he would do to help the Indians of the Andes in achieving a better life.

Read aloud some of these lists and discuss them.

22. Have each pupil assume that he is an Indian village dweller. He should write an account of his first day in the city. What would be different about the life in the city? Why would it be difficult at first to live there?

Perhaps have a pupil report on Peace Corps workers in the Peruvian highlands or on some other project undertaken to improve conditions.

-21-

G. Change in one aspect of culture brings about changes in other aspects.

C. Prospects
populatio
problems
adjustmen

1. More
in the

2. New ro
Indian

3. Many w
for a

-21-

ct of culture
es in other

- C. Prospects of a doubling in Andean Indian population within fifteen years increase problems but may bring about certain social adjustments.
1. More Indians will be forced to find jobs in the towns and industries.
 2. New roads and highways will make more Indians aware of the new life.
 3. Many will see increasing opportunities for a better life.

-22-

23. Point out the population predictions for the next decade and show a table or graph of caloric intake reported for this region. What problems can be expected if agricultural techniques do not change greatly? What will this force many Indians to do?

BIBLIOGRAPHY

I. Books

Gray, William H., et. al. EXPLORING AMERICAN NEIGHBORS IN LATIN AMERICA AND CANADA. Chicago: Follett, 1960.

James, Preston. LATIN AMERICA. New York: Odyssey Press, 1959 ed. (For teacher.)

Kohn, Clyde and Dorothy Weitz Drummond. THE WORLD TODAY, ITS PATTERNS AND CULTURES. New York: McGraw-Hill, 1963.

Lindop, Edmund with Ernest W. Tiegs and Fay Adams. UNDERSTANDING LATIN AMERICA. Boston: Ginn, 1966 ed.

Pan American Union. THE INCAS. Washington D. C.: Pan American Union, 1964 ed.

Whittemore, Kathryn, et. al., THE UNITED STATES, CANADA AND LATIN AMERICA. Boston: Ginn, 1962.

II. Filmstrip

Life Filmstrips. THE INCAS. 69 Frames, color. Time & Life Building, Rockefeller Center, New York 20.