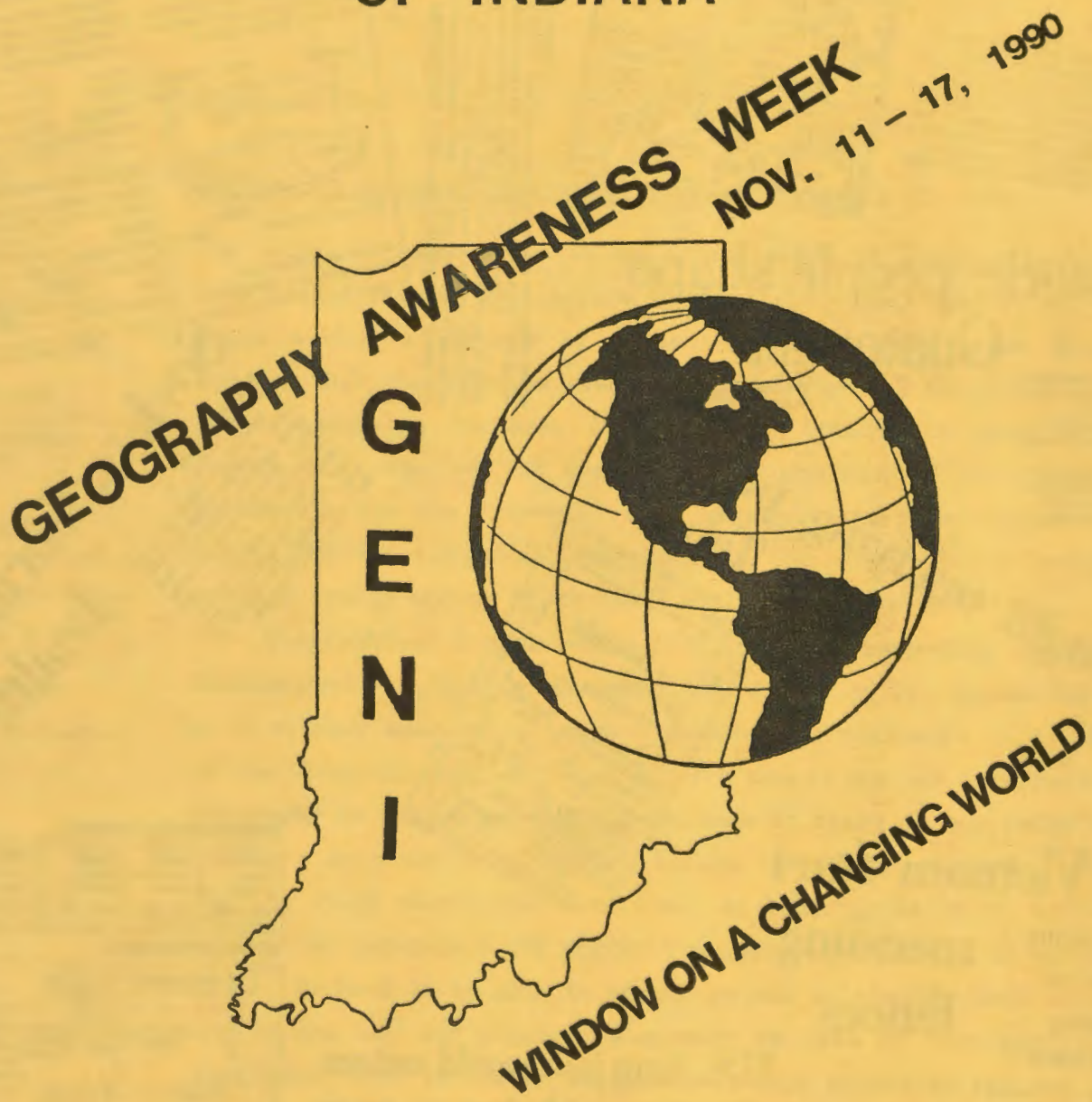
GEOGRAPHY EDUCATORS' NETWORK OF INDIANA



VOL. 90 NO. 5 OCTOBER 1990

Samarkand retains ancient air of intrigue as a Soviet backwater

By MORT ROSENBLUM
ASSOCIATED PRESS

Samarkand, USSR — Under a white mulberry tree, amid the aroma of roasting kebabs, wizened men in coats of many colors stare at chess pieces that might not have moved since Genghis Khan went home.

If it's a bustling city of mainframe computers and brain surgeons, Samarkand is also a Tower of Babel exuding mystery, an air of high intrigue from its ancient days as a world capital.

POLICE, PALESTINIANS CLASH IN JERUSALEM — About 100 Palestinians spilled gasoline onto roads near Jerusalem's Old City on Saturday, apparently to block police access to the area. Palestinian youths then battled riot police, who wounded three youths by firing rubber bullets, according to police and Arab witnesses.

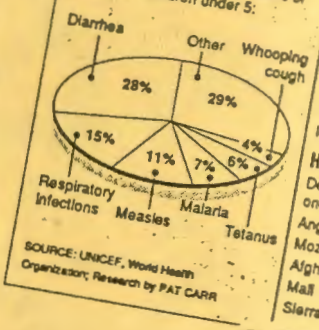
The clashes broke out just before sundown, which marked the end of Yom Kippur, the Jewish Day of Atonement and holiest day on the Jewish calendar.

70 world leaders head for U.N. summit

World Summit for Children, held at the United Nations Saturday and today, focuses on children's needs. More than a quarter million children worldwide die weekly from preventable illness, malnutrition.

Main causes of death

14 million children die annually around the world. Most deaths are preventable at low cost. Causes of deaths for children under 5:



SOURCE: UNICEF, World Health Organization; Research by PAT CARR

Lowest infant mortality

Worldwide death rate for children less than a year old was 13 per 1,000 children in 1988. Countries with the lowest rates:

Japan	5
Finland	6
Sweden	6
Switzerland	7
Ireland	7

Highest infant mortality

Deaths of children less than one year old per 1,000 in 1988:

Angola	172
Mozambique	172
Afghanistan	171
Mali	168
Sierra Leone	153

Knight-Ridder Tribune News

Prehistoric people shape Guatemala

By DAVID ROBERTS
UNIVERSAL PRESS SYNDICATE

In Guatemala City, I asked the upper-class teen-ager if she knew any Maya people.

"No," she answered in English. "I don't think I've ever even seen any."

She was, of course, mistaken: At every bus stop in the capital, Maya men and women stand waiting for their rides to work.

Drought uglifying pristine Lake Tahoe

Soviets, fearing for health

By DAVID REMNICK
THE WASHINGTON POST

Moscow — Tens of thousands of people in Ust Kamenogorsk in Soviet Kazakhstan held angry demonstrations Saturday to protest an explosion two weeks ago at a nearby nuclear-fuel plant that officials said could endanger the health of more than 100,000 people.

U.S., Vietnam start mending fences

Nations making efforts toward normalization

By PETER JAMES SPIELMANN
ASSOCIATED PRESS

United Nations — U.S. Secretary of State James A. Baker III met his counterpart from Vietnam on Saturday, taking a step toward normalizing relations severed since the Vietnam War.

U.S., Iraq join world suitors of nation with key to crisis

By JONATHAN BRODER
SAN FRANCISCO EXAMINER

Washington — In the three-way game of Persian Gulf poker, Iran now sits in the dealer's chair, deftly playing off the United States and Iraq to its own advantage.

Paris makes strong moves to reduce traffic jams

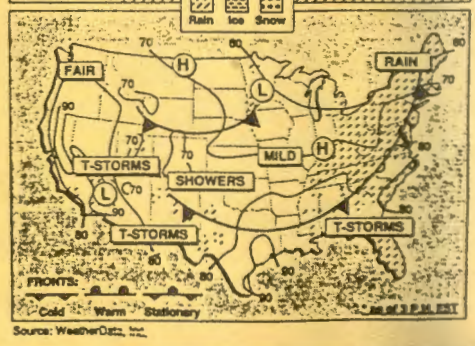
NEW YORK TIMES

To help ease traffic in Paris, drivers are now subject to a severe set of parking regulations. A north-south route from the Porte de Clignancourt to the Porte d'Orleans and an east-west route along the Seine from the Quai d'Issy to the Quai d'Ivry are now classified as "red zones" where parking is prohibited and standing severely restricted.

INDIANAPOLIS FORECAST

TODAY	MON	TUE	WED	THU
Partly cloudy	Chance of shower	Partly sunny	Partly sunny	Variable clouds
55° / 68°	43° / 67°	45° / 70°	50° / 75°	53° / 75°

TODAY'S WEATHER*



Source: WeatherData, Inc.

The Indianapolis Star
Sunday, September 30, 1990

Geography Educators' Network of Indiana

Dept. of Geography - IUPUI
425 University Blvd., Indianapolis, IN 46202-5140
(317) 274-8879

October, 1990

WELCOME TO GEOGRAPHY AWARENESS WEEK, NOVEMBER 11-17, 1990!

The enclosed information is an accumulation of lesson plans that have been developed by teachers in the field. Geography is the main focus within a variety of content-areas at many grade levels. Lessons that apply to the elementary grades are at the front of the packet, with an increase in difficulty toward the back of the packet. At the end of the materials are several maps and fun worksheets for the students use. Each lesson plan includes the name(s) of the person(s) who developed it. *Thank you* to everyone who has freely shared their ideas with the rest of us!!!!!

Geographical comprehension is a necessary commodity in today's interdependent global environment. As stated by Sr. Jeanne Knoerly at a welcome address to weekend workshop participants at St. Mary of the Woods College, "...to talk with people who are interested in geography is a real privilege. Because if there is one thing that I know - in a world of endless things that I do not know - it is that to truly understand our lives, as individuals or as nations, we need to understand the physical context of the world in which we live. We need to be able to visualize and to clarify that context and to see how our physical placement in this or that particular geographic spot is one of the greatest keys to who we are and that it always affects, and very often controls, our relationships with others." The incorporation of geography within a school curriculum can lead to the heightened awareness of the student's personal relationships with others. Students take that personal information home and into the community. Geography offers a holistic approach to education. Take advantage of the enclosed materials to affect a change in increased student geographic awareness.

Kathleen Lamb
Editor

Great News!!

Do you need maps, charts or other graphics ?

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- Business Meetings
- Thematic Maps
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Monday thru Friday

PHONE:

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or

(317) 274–8877

5 THEMES OF GEOGRAPHY

LOCATION

PLACE

HUMAN-ENVIRONMENT INTERACTION

MOVEMENT

REGION

As you look at each of the projects, try to find how each of the five themes of geography is illustrated.

THEME # 1

LOCATION

"ABSOLUTE LOCATION" means the "site" of a spot, its "address," given in terms of latitude and longitude.

"RELATIVE LOCATION" means the "situation" of a spot, or where something is in relation to things around it.

LOCATION is the first theme because it is essential to know where a place is in order to understand its other features or characteristics. LOCATION is often thought of as "all there is to geography." But geography is much more than just LOCATION.

THEME # 2

PLACE

"PLACE" means the physical and human characteristics of a spot. It is these distinctive tangible and intangible characteristics which give meaning to a site and distinguish it from other places.

If you think of a vacation site in terms of warm sun, sandy beaches, friendly folks, and a very relaxing atmosphere, you are describing it in terms of your sense of PLACE.

THEME # 3

HUMAN-ENVIRONMENT INTERACTION

This theme is also thought of as "relationships within places."

The key idea is connections -- how we affect the environment around us and are in turn affected by it.

"Environment" in this sense means both the physical and human components. That is, geographers look at how people affect both the world of nature and the world of our creation, and then how we are in turn affected by each of these.

THEME # 4

MOVEMENT

Geography is movement. All kinds of things move. Goods, people, and ideas move. Animals, plants, earth, water, and air all move, too.

Mobility is an essential part of our lifestyle. Humans interact, and are interdependent. The "tyranny of distance" is overcome by our ability to move ourselves, our products, and our knowledge, with relative ease.

Movement therefore means change -- change over distance and change through time. Geography is not static.

THEME # 5

REGION

A "region" is an area characterized by a particular unifying feature or set of features, which distinguish the region from surrounding areas.

These features may be either natural or cultural, and a place may be part of any number of different regions.

The Mississippi River drainage system is one natural region; the St.Croix River drainage system is a subset of that region.

Similarly, Minnesota is said to be part of the midwest, upper midwest, north central states, great northwest, dairy belt, corn belt, frost belt, and many other regional divisions.

GAW SPEAKER'S BUREAU LIST

The following people have made themselves available to be guest speakers during Geography Awareness Week. Please contact them if you would like to make arrangements to have them speak. Good Luck!! And thank you for utilizing this *valuable* resource!!

NORTHERN INDIANA ----------

Mary Kimsey - Valporaiso Area Grades K-12 (219) 464-5157 (work) (219) 462-5419 (home)	Latin America and/or physical geography.
Joe Gwin Grades K-12 (prefers high school) (317) 685-5502 (work) (317) 637-9343 (home)	Lifestyles of the Middle East.
Mary A. Price Grades K-12 (219) 724-7121 (work) (219) 747-7102 (school)	Japan - Consultant for the Arts and may be able to bring a Japanese intern with her.
John S. Metzger - Ft. Wayne Area Grades 11-12 (219) 432-7712	Kenya and Lesotho.
Jean Marr Grades K-12 (as speaker) Grades K-6 (has activities) (219) 447-4191 (school) (219) 447-2440 (home)	Soviet Union.
Flavio Luiz Eltz - Tippacanoe County Grades K-12 434-7786 (work) 743-0739 (home)	Brazil (Rio Grande De Sol).
Luicia Helena Anjos - Tippacanoe County Grades K-12 497-4681 (home) Please call during lunch.	Brazil.
Luis Francisco Irigoyen - Purdue Area Grades K-12 494-7463 (work) 743-0586 (home)	Brazil and Uruguay.
Mrs. Phil Daley - Tippecanoe County All grades (317)743-4353	Coordinator at the International Center West Lafayette

Patricia Moyer - Valparaiso area
(219)464-5398
-3087

Jerzy Jemiow - Muncie area High school (317)285-1776	Eastern Europe, USSR, & tourism
Mary Ann Bolinger Grades 4-12 (317)649-1329	Hawaii, Australia, & New Zealand

Central Indiana ----------

Fuad Nassir - Terre Haute and Indianapolis Grades K-12 269-3500 (work) 923-6498 (home)	Africa, Europe, and/or Morocco.
Edson Pereira - Indianapolis Area Grades K-12 849-5101 (work) 848-8885 (home)	Brazil (Mato Grosso).
Luiza Gerhardt - Indianapolis Area Grades 1-5 638-2857 (home) Please call during the day.	Brazil.
Laura K. McCormick - Greenwood Area Grades 2-5 882-4436 (home) Please call in the evenings.	Cartography.
David James - Marion County Grades K-12 269-1440	Meteorology and climatology.
Beth Bohn - Within 1 1/2 hrs. of Indpls. Grades K-12 (317)846-5764 (home) 276-2062 (work)	South American/Brazilian geography
Todd Nation - IPS schools/Monday only Grades 1-12 (317)923-6498 (home) 233-3304 (work)	Thailand, Southeast Asia, & France
Robert McLain - Indianapolis area Grades K-12 6707 Marmont Circle, Indpls., IN 46220	Meteorology

CONTACT for the International Council: Susan McKee
7524 Noll Road
Indianapolis, IN 46278

Liu Yang - Indianapolis area (317)684-9063 (home) Grades 1-9	Peoples Republic of China

Kathi Koch - East central Indiana (317)584-1147	Geog. of IN / grades K-12 Rectangular Surveying / 4-12 YO system of mountains / 7-12 5 themes of geography / K-12 Plate tectonics/drift / 7-12 Community building / K-12
Dr. Jonathan Lengar - Marion County (317)545-0705 (home) 352-1930 (work) All grade levels	Culture of Africa, World regions, World issues, & Sierra Leone
Michael Finnerty - Indianapolis All grade levels (317)639-9013 (home) 274-3837 (work)	Ethiopia & Honduras
Dr. Ed Lyon - Muncie area All grade levels (317)285-1761 or 1776 (work) 284-8659	Europe
Dorothy Drummond - West Central Indiana All grade levels (812)533-2219	World, China, Burma, USSR, & climate
Stephen Weninger - Indianapolis area Grades 9-12 (317)788-3394	Hong Kong & Thailand
J.T. (Marty) Gendron - Central Indiana Grades 7-12 (317)576-0614	Burma, Vietnam, Germany, Italy, & aviation
Hetty Gray - Metro. counties of Indpls Grades 6-12 (317)835-7813	World geography
Lynn Stewart - Indianapolis area Grades 7-12 (317)849-7295	Human geography
Jeff Lazalier - Indianapolis area Grades 9-12 (317)787-2211 (work)	Meteorology
Bruce Bigelow - Indianapolis area Grades 9-12 (317)283-9473	Cultural/historical geography
Deanna Cathcart - Indianapolis Grades 6-12 (317)274-5054	Kenya (East Africa)

Southern Indiana

Connie Yeaton - Southern Indiana
Elementary grade levels
(812)372-1866

Geography strategies/China

Diana Wilson - Southeastern Indiana
Grades K-6
(812)347-2901

Geography strategies/various lessons

Barney Quick - Columbus area
Grades 6-12
(812)526-2666 (work)
372-4847 (home)

Portugal, Japan, & USSR

For a contact to a possible guest speaker, call Kelly Jeffcook with the Fort Benjamin Harrison foreign offices at (317)549-5666. She *may* be able to line up a contact for you in your region.

Other possible contacts may be local weather persons:

Richard Addis
50888 N. Michigan St.
South Bend, IN 46637

John Bielski
314 Ingram Avenue
New Albany, IN 47150

Philip Stanley
1916 Bonnie View Court
Evansville, IN 47715

Thomas Magnuson
6801 Shalimar Court
Indianapolis, IN 46214

Valerie Jones
9119 Fireside Dr.
Indianapolis, IN 46250

Randall Ollis
5815 Attleboro Court
Indianapolis, IN 46250

Paul Silvestri
WSBT - TV
300 West Jefferson Blvd.
South Bend, IN 46601

Robet Werner, Jr.
414 East Pokagon St.
South Bend, IN 46617

First-Day Inventory of Basic U.S. Geographical Knowledge

By Steve Wilson
Frankfort Middle School
Frankfort, Indiana

How you begin the first day of school will affect your students for weeks to follow. While certain administrative duties and introductions are necessary, if we imagine ourselves to be the students who repeat that same process six to eight times that first day, we can understand why the first day back often causes students to start counting the days until Thanksgiving vacation. Why not be different from the rest? Why not give your students a test the first day?

This activity is designed to be fun, but it will also help you as the teacher understand what knowledge your students are bringing with them to your classroom. ("You can't know where you're going unless you know where you are.") At the end of the lesson students move from merely knowing information to understanding its importance. Students can be led into thinking about and analyzing the effect of geography upon history. This activity is designed for middle-school students in U.S. history, but it could easily be adapted to global studies or local history at any level.

Objectives

1. To draw a simple outline map of the United States.
2. To place major geographic features on an outline map of the United States.
3. To use a map to locate physical features of the United States.
4. To understand the role geography plays in the way people live.
5. To analyze how geography guides the development of nations.

Background Discussion

Take care of any administrative first-day chores. Don't be too eager to get started. Remember that there will be delays, interruptions, and late arrivals. Once things have settled down, make the announcement, "O.K., clear off your desk. We are going to have a test. I want to find out what you already know."

Background Materials

For Each Student:
- A blank sheet of unlined paper
- An outline map of the United States
- A desktop map that contains all the features to be discussed

For The Class:
- A large map of the United States
- An overhead projector with a transparency showing the U.S. outline map

Procedures

1. Give each student a blank sheet of paper and ask them to draw an outline of the United States. (Did they include Alaska and Hawaii? If so, where?)
2. Have the students place major geographic features on their maps as you read them from your list. (Tell students that they can look at their neighbors' papers, but only after they have marked their own. It's reassuring to know that others are as "dumb" as you are.)
3. Repeat step #2, but this time as a class. Begin by giving each student an outline map of the United States as well as a map that contains all of the features you will be working on. Also, place an outline map on the overhead. Have "volunteers" fill in each feature on the overhead map as each student completes his own. Give as much help as necessary to the volunteers. This is primarily a teaching lesson, not a test.
4. Use the maps the students have created to teach some basic concepts that will be further developed during the year. In this section thinking is more important than right answers. The following are some examples of concepts that could be explored:

Rivers
1. What direction do they flow?
2. How are they different in the Midwest from the East Coast?

Coastal Geography
1. Where is the rich coastal plain the widest? What might people in this region do for a living?
2. Where is the coastal plain the smallest or non-existant? What types of work might these people do?
3. Would Indians on the coast live differently from Indians in Indiana? Arizona? Oregon?

Barriers to Settlement
1. What geographic features on our map tend to divide up our nation into separate regions?
2. As far as early settlers were concerned, was this good or bad?
3. Are these barriers as important today? Why or why not?

Related Activities

Save your students' papers and in a few weeks repeat the "test". Comparison of the two sets of papers should show the students that they are learning.

Develop a similar test over your state, county, city, or even your own school.

Divide into groups and have the groups develop tests for each other.


Landform outline map of the
UNITED STATES
with adjacent parts of Canada and Mexico
by Erwin Raisz
WITHOUT LETTERING
Scale 0 100 Miles
Copyright 1958 by Erwin Raisz
PRINTED IN U.S.A.

G O C L E A N Y O U R R O O M

Theme: Human Environment Interactions

Level: Grades 4 - 6

By: Kathy Miller
Springfield School
Michigan City, Indiana

Description & Purpose

We live in a shrinking world and our responsibilities to keep it clean increase proportionately. A child understands keeping his own room clean. The world "out there" is another matter, someone else's responsibility. The following activity of hands-on and observation and discussion provides an opportunity to personalize and bring home the problem of pollution of the environment.

Related Subjects: Geography, Science, Health, Government

Objectives:

1. To identify when pollution occurs
2. To observe and describe instances of air, water, and land pollution
3. To list ten ways a student can help prevent pollution

Materials Needed

Metal pan, paper scraps, candle, matches, glass jars, clear liquid detergent, large waste basket full of dirty trash

Procedure:

1. Student desks should be arranged in groups of five, simulating a laboratory table for observation. This activity should take two class periods: one for the activity and one for the discussion and worksheet. The first activity should be a teacher demonstration (for obvious reasons). The teacher will burn clumps of scrap paper and the students are asked to describe what they observe (e.g. black smoke, carbon, odor, unburned particles). Similarly they will observe a candle burning and describe what they see. Is this air good for breathing? Smell it!
2. Give each group a large jar full of water to which you have previously added clear liquid detergent. Suggest that they might sip the water but only after examining it. Would you drink this water? What is the foam? What could have caused the foam? Would you drink water that foamed?
3. Take a large wastebasket filled with "dirty trash" (coffee grounds, wet paper towels, etc.) and dump it on some desks. Students could also make their own garbage. How do you feel about that? How do you feel about dumping this mess on your desk, your room, your yard?
4. Do map activities on toxic dumps.
5. Discuss consequences of pollution and list what students can do to counter pollution.

Evaluation:

When requested by the teacher, the student should be able to give three examples of pollution and list ten ways he or she can correct and prevent those examples.

Limitations: This is a very broad subject and it is meant solely as an introductory activity. The burning segment should be done by the teacher, the detergent by the students, the trash segment jointly. If the student "makes" his own garbage, it can be analyzed in terms of what is biodegradable.

Appendix:

1. Map of Toxic Waste Dump, SCIENCE , p. 385
2. Mailbox, p. 13

References:

1. Mailbox, April/May 1990, p. 13
2. SCIENCE, Silver Burdett,Grade 5 textbook, pp. 237-255
3. Schwarz, William, Voices For The Wilderness, Ballantine Books, New York, 1970
4. Battan, Louis, The Unclean Sky, Anchor Books, Doubleday & Co., New York, 1966
5. Carson, Rachel L., The Sea Around Us, Mentor Books, New American Library, New York, 1950
6. Taylor, Gordon Rattray, The Doomsday Book, Fawcett Crest Books, Greenwich, CN, 1970

INGENIOUS BLACK AMERICAN INVENTORS (Gr.7)*

PURPOSE: To delineate the contributions of Black American inventors to society, using a geographic frame of reference

OBJECTIVES: Students will be able to:

- . Identify specific inventors and their works
- . Discuss variables of each inventor's situation
- .Explain the impact of the inventions on a given area
- .Highlight geographic themes gently embedded in expository text

MATERIALS:

..Study Pac .. Bulletin Board .. Atlas/globe/outline map

..tape ..colored pencils .. application cards

Lora J. Vann
Seminar in Regional Geography
G 817 (Section X 378)
June 13-29, 1990 (IU-PUI)

PROCEDURE:

1. Count off to divide into groups
2. Using Study Pac review vocabulary, phrases, and places
3. Re-read the Study Pac information on inventor chosen
4. Complete Story Web for each inventor
5. After sharing the Story Web information, complete the Story Map for each inventor
6. Use the colored pencils to trace related movements of inventor/invention
7. (G.A.)=Group Activity: Use application cards to to discuss economic/social impact of invention
8. Pinpoint impact information on map
9 (G.A.) Complete INGENIOUS INVENTORS puzzle

Enrichment Activity:

Study Pac: WHY DIDN'T I THINK OF THAT?

Industrialization can increase a society's productivity by allowing its members to use their resources more efficiently. Help increase the productivity of the people of the kingdom of the earth by designing a machine . to help produce one of the following goods or services:

a. an automatic soup cooler b. a potato chip maker
b. an automatic backscratcher d. automatic fishing pole
e. picture-painting machine f. dog-bathing machine
g. ice-cream-cone maker h. fence-painting machine
i. your own idea:

Geography - Natural Resources

Purpose:

To teach the five natural resources of the United States

Lesson Objectives:

1. Students will define natural resources.
2. Students will be able to identify the five natural resources
3. Students will be able to determine the natural resources of various products.

Melva Wilson Mosley
Grade 4
Brunswick Elementary School
Gary, Indiana

Procedure:

Day 1

1. Discuss the meaning of natural resources. Students will look at pictures and identify the natural resources.

Day 2

2. Students can classify products according to its main resource by making a diagram. Use the mapping techinique. Place a box containing the word of the natural resource on spoke lines extending from the box, then identify products that use this natural resource.
   Place a picture of the product at the end of the extended line or write the name of the product.

Day 3

3. A cupcake pan can be used to classify products. Place samples of natural materials such as salt, sand, and soil, in plastic bags. Placed a bag each metal cup. Have students label the products with a naming card and then identify the natural resource for each product.

Day 4

4 Discuss how products move from one place to another. Using a map name the continents to which different foods and products are transported.

Extended lesson:

5. Students when visiting the grocery store can find the location of the company that produce the product.
6. Look through the newspaper and find articles about natural resources in the city. Prepare an oral report.

Materials:

magazines, scissors, maps and globes, cardboard or posterboard, index cards, and cupcake pan, (samples of natural resources)

"MIMAL" AND OTHER LANDFORMS OF THE UNITED STATES

Lesson description:

This lesson is about learnng to identify some of tne major landforms of the United States.

Prepared by:

Jill Bowman
Parkview School #81
Indianapolis, Indiana

Target audience:

Beginning 5th grade social studies students. Approx. 25

Program description:

Children will work individually and in pairs. Lesson would be approximately 50 minutes in length. Geographic themes covered would include location and region.

Learning objectives:

1. Students will be able to identify some of the major landforms of the United States on a blank map of the United States.

2. Students will begin to sense the variety and diversity of landforms of the United States.

3. Students will begin to form mental maps of the United States for themselves.

Supplies:

Classroom map of the United States
Overhead projector
Transparency map of the United States
Blank United States maps
Crayons
Pens/pencils

Learning activities:

1. Tell children to look for the "man-in-the-map" as they do tne activities.

2. Use the classroom map to help the children quickly identify some of the major landforms and some other features of the United States map, including:

   Oceans - Atlantic, Pacific, Gulf of Mexico, Caribbean Sea
   Lakes - The Great Lakes
   Rivers - Ohio, Missouri, Columbia (Mississippi will be introduced shortly.)
   Deserts - Arizona, New Mexico, Nevada, California
   Plains - Atlantic coastal, Great Plains
   Mountains - Rockies, Appalachians, Ozarks
   Arctic - Alaska
   Forests - Hawaii, Eastern woodlands
   Countries - Mexico, Canada

3. Next, distribute blank United States maps. Have the children work in pairs to identify the preceding landforms, one at a time as the teacher identifies them on the overhead map. Remind them again to watch for the "man-in-the-map".

4. NOW! Introduce the Mississippi River as a major waterway.

   MIMAL is a little man who stands in the middle of the country. His front is formed by tne Mississippi River.

   M - Minnesota is his big floppy hat.
   I - Iowa forms his face with a large nose sticking out.
   M - Missouri forms his waistcoat. He does have a tummy!
   A - Arkansas forms his pants.
   L - Louisiana is his wading boots.

   Children continue working in pairs to trace MIMAL on their own maps.

Evaluation:

The completed maps show if the children are beginning to have an understanding of the United States map. Children who finish early can quiz each other on tne names and locations of various landforms on tne maps.

The Eskimo and
the Northland

Lesson Plan and Notes For Teachers

Preview of Main Points

This lesson studies the relationship between people and their physical environment. Climate, landforms, customs, and other factors influence the life of all people, particularly the Eskimo. Their dress, shelter, food, and customs were influenced by their environment.

Connection to Textbooks

This lesson is suitable for use in fifth and sixth grade social studies, geography classes in junior/middle school, and in an elementary economics appreciation study.

OBJECTIVES

Students are expected to:

1. Demonstrate knowledge of the Eskimo's adaptation to their environment.
2. Distinquish innate behavior learned from seals as a hunting aid.
3. Relate the advances made in the Eskimo lifestyle in terms of labor and capital.
4. Comprehend and interpret the "choice making" of the Eskimo resources based on custom or past history.
5. Support their discussion responses through reference material.

Suggestions for Teaching the Lesson

The lesson will involve a preassigned reading knowledge of the Eskimo lifestyle (past/present) and an auditory case study of the early consumption of the Eskimo's environment.

Students will then apply their understanding of resource consumption cooperatively discussed from the referenced material.

Opening the Lesson

*Inform students of the main points and purpose of the lesson.
*Review students understanding of assigned text reading by discussing vocabulary terms.
*Focus students' attention on an auditory reading of a case study by geographers in the Eskimo Northland region.

Sandra Wesselman
Dubois Middle School

Developing the lesson

*Break students into cooperative learning groups and work through worksheet 1 Topics.
*Encourage students to interact, but choose a secretary to document the group's responses, a timer to keep them on track, and an observer to validate all members roles are completed and attended seriously.
*Require students to support answers with specific references to economy, politics, social, climate, consumption, and custom.

Concluding the Lesson

*Students may individually complete worksheet 2 Consumption .
*Students may write a paragraph predicting what may happen in the future to the Eskimo life.
*Students may write a paragraph pretending they are a mayor of an Eskimo village, telling how with a limited amount of money, they would help citizens find jobs in their environment.

Suggested Readings/Copies

FOLLET SOCIAL STUDIES Exploring Our World: Latin America and Canada; Susan Dye Lee (Follet Publishing Co. : Chicago, 1977) pgs. 40-43; 392-395.

The World and Its People: Canada and Latin America; Gary S. Elbow (Silver Burdett Company: Morristown, New Jersey; 1985) pgs. 52; 106; 109; 116; 148-151.

Secretary _____

Timer _____

Observer _____

Worksheet 1
The Eskimo and
the Northland

1.
Climate and landforms are two factors that influence the way people live in a region. Other factors are customs, technology, natural resources, and the abilities people have that enable them to make use of a region's resources.

Clue questions:
How has the climate of the northland influenced the Eskimo's way of life?
What technology has the Eskimo developed that enables them to survive in the region's harsh climate?

2.
Different groups of people may have different values. They may value resources of a region in different ways.

Clue questions: How was snow a natural resource to the Eskimo? Is snow a natural resource or a problem where you live? Which natural resources in the United States might be useless to an Eskimo?

3.
No region or people will always remain the same.

Clue questions: What might happen to the "Raven and the Loon" story the next time it is told? Do you think the Eskimo way of life has changed much in the 20th century? Why or why not?

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GEOGRAPHY: Our National Parks

1990 Geography Institute
GENI

Inservice Lesson Presentation

Purpose: To introduce students in grades 6,7,& 8 to one or more national parks in the United States National Parks System.

Objectives:

1. To identify, by name, one national park in the United States National Parks System.
2. To identify the classification of the park.
3. To be able to identify plant and animal life that inhabit the park area.
4. To identify bodies of water and landforms associated with the park site.
5. To identify points of interest, visitor activities, and any danger area associated with the park.

Procedures:

1. Identify the topic.
2. Distribute the national park brochure and worksheets.
3. Teacher explanation and discussion of exercise.
4. Divide class into work groups & let the students proceed to work on worksheets.
5. Teacher should circulate to guide and observe the activity.
6. At the end of the alloted work time, have a student from one group share the information gained while completing the worksheet. Prior to sharing the information, have that student pin-point the park location with a map pin or flag. Use a piece of yarn to show the distance (as the crow flys) between the park location and the students' hometown location. Use a U.S.A. map or a National Parks Guide Map.
7. You may stop after one session or you may continue for more sessions. Use the same procedure, but national park brochures from parks of different classification types.

National Park Worksheet: Geography

Park name: _____

Park type: _____

Animals/fish: A. _____ F. _____
B. _____ G. _____
C. _____ H. _____
D. _____ I. _____
E. _____ J. _____

Birds/insects: A. _____ F. _____
B. _____ G. _____
C. _____ H. _____
D. _____ I. _____
E. _____ J. _____

Plant life: A. _____ F. _____
B. _____ G. _____
C. _____ H. _____
D. _____ I. _____
E. _____ J. _____

Bodies of Water: A. _____ D. _____
B. _____ E. _____
C. _____ F. _____

Near islands: A. _____ D. _____
B. _____ E. _____
C. _____ F. _____

POINTS OF INTEREST: A. _____ D. _____
B. _____ E. _____
C. _____ F. _____

3. Using a U.S.A. travel map, plot a trip from Indianapolis to your park location. Be sure to list all of the route numbers for the routes tat you travel.

4. List the directions in which you travel from Indianapolis (beginning point) to your park location.

5. What is the longitude and the latitude of your park site's location?

CHALLENGE ACTIVITY: Complete the following, if assigned challenge work.

1. Once you ar at your National Park location, plot a day's travel and activities with-in the park. Use your National Park flyer and its key.

2. Use a AAA tour book (or other guide type book) and maps to plan a complete vac ation. Include side visits to other interesting or educational attractions. Include gisits to tourist type locations and other National Park sites. Inlcude all dollar costs.

VISITOR ACTIVITIES: A._____ E._____
B._____ F._____
C._____ G._____
D._____ H._____

WARNINGS ASSOCIATED WITH THE SITE: A._____ E._____
B._____ F._____
C._____ G._____
D._____ H._____

WHY WOULD WE BENEFIT FROM A VISIT TO THIS PARTICULAR PARK SITE?

_____
_____
_____
_____
_____

Bonus: What geographic terms are associated with your park site:

A._____ B._____
C._____ D._____
E._____ E._____
F._____ G._____

Part II: Complete the following activities.

1. Using a climatable, what would probably be the best month month (s) to visit your site and why?

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Creative Writing

1. Create word pictures about nuts; for example, a walnut might be pictured as a nut growing out of a wall.
2. Write alliterative sentences using the letters "p" or "N". "Polly Pickens plays perfectly practiced piano pieces."
3. Think of some "nut" sayings, such as "I'm nuts about you". Write them on mural paper and hand in the room for a graffiti wall.
4. Invent 10 new uses for peanuts.
5. Write a conversation which might occur between a peanut and a stick of butter.
6. Invent, write , and demonstrate at least 5 ways to get peanut butter off the roof of your mouth!
7. Have the class, in small groups, write and perform "peanut" plays where all the characters portray nuts.
8. Read "Peanut Butter Sandwich" in Shel Silverstein's Where the Sidewalk Ends. Ask students to write six-line stanzas about the best time they ever had while eating peanut better sandwiches.
9. Story starters--One pistachio day in Peanut Land, a small walnut named Willie went to see his best friend, Arnold Almond. Willie and Arnold were concerned because the Pecan Brothers, Peter and Paul, were building a house out of peanut brittle, peanut butter, and pecans, but were leaving the almonds and walnuts completely out of it. When they got there, they found-------

Science

1. Gather a variety of nuts. Look for pictures and information about them in reference books. Record facts about their growth, harvest, and use. Collect all this into a "NUT" Book, and display in the room or library.
2. Attempt to grow some peanuts. Observe and record data.
3. Create flash cards to show how peanuts grow from planting through harvesting.

Social Science

1. Ancient tribes found many uses for varieties of empty shells. List ways they might be used today. Can you brainstorm 10 new uses.
2. Peanuts, or goobers, comes from the Congo word NGUBA. First sold commercially in 1870, it was an important food source for soldiers during the Civil War. The song "Eating Goober Peas" is from this period of history. Learn the words and sing it with the class.
3. Hot peanut salad is a specialty of the Chinese people. Look up recipes using peanuts. Make a "Peanut World Recipe" file.
4. Interview parents and friends for their favorite recipes involving peanuts.
5. Visit restaurants specializing in ethnic foods and ask if they serve dishes using peanuts. Sample some.
6. Peanuts were first used over 2,000 years ago in South America. Read about this period in history. Find out about the culture of these early people and the uses developed for peanuts. Write a brief report to share with your classmates.
7. How might the growing of peanuts have gotten to this country? Write your theories down explaining what you think.

Resources--Good Apple Newspaper April/May 1990 Section 2

Evaluation--Teacher observation of student participation
Teacher decision if projects are to be graded and grades issued

Math

1. The average person eats about 3 pounds of nuts a year. How much would this be per month? Per week? Conduct a survey of classmates and find out how much they eat a month. Compile the results and construct a graph to show these findings.
2. Visit your local food market produce section. Examine the bags of shelled peanuts. How much do they cost for the same amount as unshelled? What is the price per weight of each sack? Which is the better buy? How do you account for this difference?
3. Estimate how many peanuts are in a bag of shelled peanuts? Unshelled

ART

1. Roasted, salted, ground into peanut butter, candy, cooking oil, baked goods,--over 300 uses were discovered by George Washington Carver. Create a collage using "peanut product pictures" from magazines and newspapers.
2. Use an ink pad to make several thumb prints on art paper. Turn these into "peanut people" by using lines to create faces, arms, leg etc. Add color.
3. Examine the symbol of the peanut company using the peanut man. What could you do to add to the symbol and make it different?
4. Collect peanut shells, or nut shells. Give them a coat of varnish. Create "shell" jewelry or pictures using them.
5. Use shell halves or the outside texture of the shell itself. Dip into paint and press on paper for interesting shell prints.

Health

1. Complete a taste test between crunchy and smooth peanut butter. Write descriptive sentences about the quality of each sample.
2. Compare different brands of peanut butter, as to cost, weight, ingredients.
3. Share miniature Almond Joy and Mounds bars, (maybe Snickers,too) to determine whether or not nuts really do make a difference, and and also to determine whether the statement made in the Mounds and Almond Joy's advertisements is true for students on this particular day. (Sometimes you feel like a nut, sometimes you don't.)

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Summer Geography Institute
1990

PLENTY OF PEANUTS--(Regions)

Purpose--To integrate the geographic theme of "region" into the curriculum

Objective--To use a representative food of a region to develop learning activities (the peanut)

Materials:(Depending on which activity you use)
- maps of the World and the U.S., outline maps, product maps
- encyclopedias/ dictionaries
- paper for drawing
- crayons/markers
- rulers
- envelopes
- variety of nuts, including peanuts in shell
- peanut butter
- recipes/cook books
- Where the Sidewalk Ends, Shel Silverstein,"Peanut Butter Sandwich"
- ink pad
- magazines/newpapers

Procedure: Information--Peanuts are full of proteins, minerals, and vitamins. They were grown 2,000 years ago by ancient people in South America. They are not true nuts, but a part of the plant that ripens underground. You really eat the pod, or legume.

Geography

1. Using an encyclopedia , research where peanuts are grown. Then, using an outline map of the world/United States locate and show the major areas where peanuts can be found.
2. Create a "World of Peanuts" chart showing different countries where peanuts are grown. Which country distributes the most?
3. Create your own island shaped like a peanut. Name it appropriately Identify different geographic landforms, lakes, rivers, etc. Name towns and cities after peanut derivatives, such as Gooberville, New Legume, etc. Describe the main tourist attractions on your island

Writing

1. Write letters requesting free information about peanuts from: The National Peanut Council, 1550 King Street, Suite 301, Alexandra VA 22314

Cultural--Who lives where? Why? Is the criteria static? (urban, interurban, rural, nationalities, age groups, religious groups, etc.)

Clothing-- Research and wear clothing or costumes appropriate to different regions. Declare a period of time for each nationality or region.

Literature--Read stories applicable to regions. Develop a regional story file. Develop investigations of each story.
EX: Sarah, Plain and Tall, Patricia MacLachlan
ISBN 0-06-024101-2
When I Was Young In The Mountains, Cynthia Rylant
ISBN 0-525-44198-0

Evaluation: Teacher observation of student participation
Teacher prepared tests and quizzes over material presented (if desired)

Resources--Maptime...USA-Good Apple GA422 Activity book
Learning About U.S.Geography FS-8421 (Frank Schaffer
Prime Time Life Skills-Good Apple GA 487
Teacher's Friend-November
Everything is Somewhere-McClintock and Helgren
ISBN 0-688-05873-6

Geography in Literature

When I Was Young In The Mountains

Purpose: To show how literature can be representative of geographic themes(region)

Objective: To use the story, When I Was Young in the Mountains , by Cynthia Rylant, to illustrate the geographic theme of region

Materials: the book, When I Was Young in the Mountains
encyclopedia, reference books on Appalachia
U. S. map
paper and pencil

Procedure: Group research into the Appalachian region, assign different aspects such as: the geography of the region, the population major cities, economy, clothing worn, family life

Locate the Appalachian area on the map. Suggest why the story might be written about this region.

Tell if the story characters have particular cultural/ethnic background, i.e. age, language, dress, employment, how different/similar to today

Write a brief script for "TV News Report", summarizing its information.

Describe the region in a mock TV documentary. Videotape the reports for playback.

Draw pictures/create artwork depicting the story, showing geographical setting as they perceive it.

Describe the"feeling" created by the story.

List the significant items of the area and time period.

Evaluation: Have the students write a paragraph comparing and contrasting life in the mountain region to life in their region.

Create some form of art work indicative of, or illustrating the mountain region.

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Summer Geography Inst.
1990

Resources: Telling America's Story, Tom McGowan

Key to Geographic Themes

L Location
P Place
M Movement
H/E Human/Environmental Interaction
R Region

1. Charlotte's Web

Geographic Theme: P, H/E
Setting: Farm
Level: 2-adult
Summary: Interaction of animals and people on the farm using human feelings and emotions. Also the themes of trust and friendship.

2. The Little House

Geographic Theme: P, L, H/E, M, R
Setting: The changing country
Level: Primary
Summary: The struggle to survive in a changing world. How the little house went from being a house in the country to being a house in a bustling city and how it got back to being a house in the country.

3. Evan's Corner

Geographic Theme: P, L, R, H/E, M
Setting: Inner city tenement apartment
Level: Primary/Intermediate
Summary: A little boy's search for his own identity and niche in the world.

4. Johnny Appleseed

Geographic Theme: P, L, H/E, M,R
Setting: Eastern U.S. into the western expansion
Level: Primary/Intermediate
Summary: The travels of John Chapman and the western expansion of the U.S. and his adventures in planting apple seeds.

5. A Sea of Grass

Geographic Theme: P,L,R,M,H/E
Setting: Nebraska
Level: Intermediate
Summary: A boy learns family history and historic home types (used by ancestors) from his grandfather. Depicts progression of house types of the region due to technological advances.

6. Tuck Eveerlasting

Geographic Theme: H/E,M,R
Setting: Midwestern rural area--100 yrs. time span
Level: Intermediate
Summary: Unending storyof immortal Tuck family and Winnie, a young girl. Winnie has to make a choice of joining the Tucks or remaining mortal.

7. If You Give a Mouse a Cookie

Geographic Theme: H/E,M,P
Setting: A home--present time--anyplace, U.S.A.
Level: Primary
Summary: Mouse visits a home and asks a boy for a cookie. This action starts a series of hilarious activities and adventures.

8. Cricket in Time Square

Geographic Theme: P,L,R,M,H/E
Setting: New York City
Level: Intermediate
Summary: Story about a cricket, Chester, who grew up in Connecticut and relocates in New York City. He finds adventure in New York with his friend, a pigeon.

9. Tikki Tikki Temba

Geographic Theme: P,L,M,R,H/E
Setting: China
Level: Primary
Summary: Story of how a Chinese boy's name affects his life.

10. Where's Julius

Geographic Theme: P,L,M,H/E,R
Setting: Imagination
Level: Primary
Summary: Boy imaginates being in different locations in world and interacts with his environment.

11. Never Tease a Weasel

Geographic Theme: H/E,R
Setting: Varied--North America
Level: Primary
Summary: Children are advised how to treat each other by the use of animals.

12. Incident at Hawk's Hill

Geographic Theme: P,L,H/E,R
Setting: Canadian Plains
Level: Intermediate
Summary: Autistic child wanders away from home and lives for 6 weeks with a badger. (Based on a true story)

12. Anne of Green Gables

Geographic Theme: P,L,M,H/E,R
Setting: Nova Scotia
Level: Intermediate
Summary: Orphan girl comes to live in Nova Scotia on a farm and finds love and acceptance.

13. The Incredible Journey

Geographic Theme: P,L,H/E,M,R
Setting: Canadian wilderness
Level: Intermediate
Summary: Two dogs and a cat make an incredible journey across the Canadian landscape.

14. Across Five Aprils

Geographic Theme: P,L,H/E,M,R
Setting: Civil War
Level: Middle School
Summary: Young Jethro Creighton comes to age during the turbulent years of the Civil War.

15. The Boxcar Children

Geographic Theme:
Setting:
Level: Primary
Summary:

16. The Lion, the Witch and the Wardrobe

Geographic Theme: P.H/E,R,L,M
Setting: London/Imaginary land kids could map
Level: Intermediate
Summary: Siblings take imaginary trip to Narnia to fight evil. Meet Aslan, the lion, and help him defeat eviland bring life back to the forest. Learn to mature and take on responsibility.

17. The Eleventh Hour: A Curious Mystery

Geographic Theme: H/E,M,P
Setting: Horace;s house
Level: All ages
Summary: Search for the thief of an elephant's eleventh birthday feast which has disappeared. Answers are sealed at the back of the book. Clues are in pictures and text throughout the story.

18. Island of the Blue Dolphins

Geographic Theme: L,P,H/E
Setting: One of Channel Islandsoff coast of Southern California
Level: Intermediate
Summary: Historical fiction based on true storyof Indian girl who spent 18 years alone on an island from 1825-1853 with only animals for companions.

19. Hatchet

Geographic Theme: L,H/E
Setting: Canadian wilderness
Level: Intermediate
Summary: Brian is in a plane crash and is the only survivor. He must survive in the Canadian wilderness with only a hatchet and a twenty dollar bill.

20. Little House on the Prairie

Geographic Theme: L,P,R,H/E,M
Setting: Unsettled west--Minnesota and vicinity
Level: Upper Primary and Intermediate
Summary: Laura tells the story of her life growing up with her family and the trials and tribulations of the wilderness. They encounter wolves, Indians, Illnesses and soldiers.

21. Beezus and Ramona

Geographic Theme: P,R,L,H/E
Setting: Small town America, specifically Washington state
Level: Primary and Intermediate
Summary: Beezus, little sister, Ramona, is a "pain in the neck." Lots of chances to make maps, mental maps, relate to small towns--regional, etc.

USING LITERATURE TO TEACH GEOGRAPHY
IDEAS FROM 1990 SUMMER INSTITUTE

1. Write or give descriptions--landforms, physical features, human and animal characteristics and interaction
2. Map reading skills
3. Close eyes and make mental map
4. Cultures and nationalities
5. Draw map as they see it
6. Look up map and draw it
7. Learn about plants and animals
8. Compare personal experience with situation in story
9. Creative writing experience
10. Study sequence of weather events
11. Biographies--link scientifically and geographically
12. Reference points to other locations in story
13. Plot or figure time/distance
14. Figure amount of food/water needed per day to survive
15. Side research into areas of interest
16. Vocabulary--language--spelling
17. Feelings, emotions, sacrifices between people
18. Tie in with art and music
19. Authors--investigate
20. Another place--Would it be different? How?
21. If ending changed?
22. Make up questions for book--students
23. Guest speaker on subject or area
24. State/defend opinion of book
25. Tear apart books--each child reads one chapter--share book to get entire story
26. Read portions of book
27. Knights of the Round Table--Code of Honor--(club for readers)
28. Volunteers/principal reads to class
29. Read book--follow with movie of book
30. Use computer disc with book
31. Grid for Waldo books--teach/practice longitude and latitude
32. Poetry
33. Trace game origins
34. "Super Sleuth"--theme per day--must use reference books to solve questions
35. "Calendar Clue"--more advanced game for using reference books--must record time/day--winner/answer announced on Friday

DIRECTIONS:
1) Title of book
2) Geographic theme
3) Setting
4) Level--primary or intermediate
5) 1-2 sentence summary

Additional Titles

The Boxcar Children by Warner
The Courage of Sarah Noble by Alice Dalgleish
By the Great Horn Spoon by Sid Fleischman
Strawberry Girl by Lois Lenski
Bears of Blue River by Charles Major
Wilderness to Washington by Eleanor Reis Long
Freedom Train by Dorothy Sterling
Sign of the Beaver by Elizabeth Spear
The Story of Caves by Dorothy Sterling
The Big Wave by Pearl Buck
Caddie Woodlawn by Carol Brink
Witch of Blackbird Poind by Elizabeth Spear
Where the Red Fern Grows by Wilson Rawls
Jonathon Livingston Seabull
Stuart Little by E.B. White
Sarah, Plain and Tall by MacLochlan
The Trumpet of the Swan
How My Parents Learned to Eat

Library Games

Super Sleuth
Calendar Clue

Hilton Hotaling Jr.
Grade 6
Social Studies

P.O. Box 85
Morristown, N.Y.
13664

THE FIVE THEMES OF GEOGRAPHY - APPLICATION OF DEFINITIONS

Purpose: The inservice audience will be able to use this lesson to review the five major themes of geography with their students. It can also be used to determine whether or not students can apply meanings of the themes to concrete situations.

Objectives: When given a packet of pictures, students will demonstrate an understanding of the the five themes of geography by correctly classifying the pictures according to the geographic theme they best represent.

When given a packet of pictures, students will realize that some of the pictures cannot be easily categorized under only one heading.

Procedures:
* Identify the topic
* Teacher explanation
* Focusing on the lesson
* Reviewing the five geographic themes
* Group work
* Reports from the groups
* Adaptation of the lesson
* Extension of the lesson

Body of the Presentation:

1* Pairing of Students: Students are paired, usually a student who has demonstrated a good knowledge of social studies with one who demonstrates a weaker knowledge of social studies. It is best if these pairs have been working together prior to this lesson.

2* Focusing on the lesson: As students enter the classroom, they take their place with their partner. On the overhead projector they will find a timed task which they are to complete with their partner. They view the transparency and then discuss with their partner which theme the transparency best illustrates. They have two minutes to complete this task. After writing it on the chalkboard, they show it to the teacher, on the command "Show Me." (All students show their boards at once).

3*Reviewing the five themes of geography: Other lessons have focused on each of the five themes and students have completed activities in which they have demonstrated an understanding of those themes. Each student in the pair lists any three of the five themes on their chalkboard. Next, each partner passes their chalkboard to their partner who then completes the list. They have three minutes to complete this task. Now the pairs review their lists for thirty seconds before the teacher commands everyone to show their boards.

4* Pass out envelopes containing a series of numbered pictures in separate envelopes. Each pair receives one envelope. Taking each picture individually, the pair discusses which geographic theme the picture represents. After reaching a consensus, the group writes the number of the picture next to the correct geographic theme they have listed on their chalkboards. In the event they cannot reach an agreement they should list the picture's number next to each theme they feel it reflects. This actually would last ten to fifteen minutes, depending upon the number of pictures in the envelopes.

While the groups are working, the teacher hangs posters that correspond with the geographic theme in the front of the room.

Note - it is best to use the same pictures in all of the envelopes. If that is not possible, you should use pictures illustrating the same basic idea - for example, pictures of different mountainous regions when you cannot find multiple copies of the same mountainous region.

5* Discussion: This part of the activity takes fifteen to twenty minutes depending on the number of pictures used. Starting with picture number one, students are asked to move to the sign with the geographic theme that picture ONE best illustrates. If all of the students move to the same sign, then simply ask for one volunteer to summarize why that theme was selected. If the groups are split over which theme is best shown, have different representatives from each pair explain their choices. After the discussion, allow students to move to a new sign. Continue with this procedure until all of the pictures have been categorized. From this activity students should realize there are differences in how people perceive the same data.

6* Adaptation of the lesson: Increase the complexity of the pictures so that students have to use higher level thinking skills. Reverse the procedure and have students find pictures to show each theme as they are individually studied.

7* Enrichment: Each pair of students will find pictures of each of the geographic themes in magazines. The pictures will then be cut and pasted to poster boards according to the correct theme. The pictures can be arranged so they represent an idea connected to the theme. For example, pictures that show movement could be shaped in the form of a train or boat.

SUGGESTION FOR DISPLAYS OR BULLETIN BOARD IDEAS PROMOTING GEOGRAPHY

Your GLOBE should be the center of these displays.(If it is a markable surface, then water soluable markers should be available. I suggest that students should be told that other markers can damage the globe.) The following catchy ideas can be the focal points and books and audiovisuals should be part of the display.

Where did you go on summer vacation?

Where did he/she live? (promoting your biographies.You might use book covers or pictures with the Person's name and dewey number underneath)

Where did the Christmas customs begin?

Where do these come from? (promote the 600 by having the students find out where wheat, coaco, diamonds,or other books you have, originate)

Where do these animals live (Promote the 500's)

Where did these folktales begin? (Promote the 398's)

Where did these games begin? (Promote the games and sports that are not always asked for in the 700's)

Where are these stories or poems discussing (Pick out some easily recognized poems or stories from the 800's)

Where did these explorers begin their journey? (Use these when the fifth graders are doing their explorers unit and use with the 900's)

The world atlas lists important events that take place somewhere. Have the students find where.

Use a UNITED STATES map with the following as the center of the bulletin board or display.

Where did the Indians live then the pilgrims came to America?

Name the states and capitals?

Lets use our colors? Count the green states, Count the blue ones, Count the red ones, And Count the yellow ones? (display the color and number books)

Let's use Size? Which state is the biggest? Which is smallest? Which is bigger (use lots of comparisons)? Which is smaller? Which states are square, round, triangle, etc. (Display books on size)

TITLE: Map Skills
SUBJECT: Social Studies
GRADE: Elementary
BY: Kathleen L. Phillips

FORMAT FOR LESSON PLAN

MAJOR CONCEPTS	SKILLS	OBJECTIVES	CONTENT	METHODS/ ORDER	APPLICATION/ PRACTICE	EVALUATION
The basic ideas that encompass each discipline.						

MAJOR STATEMENT: Map skills can help us understand our environment

CONCEPTS: Maps, Environment

ACADEMIC SKILLS: Synthesis, Application, Interpretation

OPERATIONAL SKILLS: Learning to make, read and interpret maps.

OBJECTIVES: Students will be able to construct from different furniture arrangements, maps of the classroom.

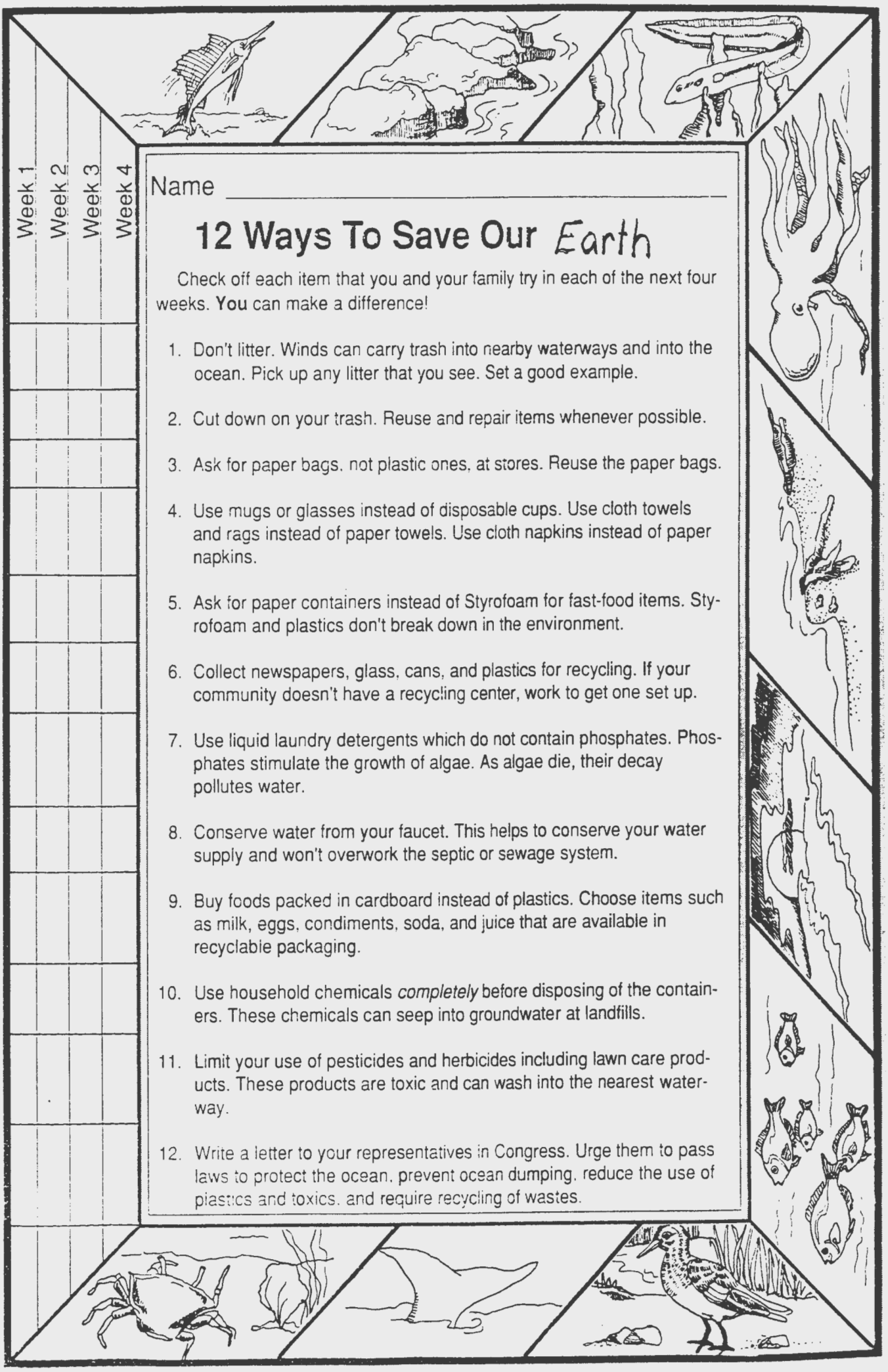
CONTENT: *Weekly Reader* Map Skills booklet; readymade maps (specific places i.e. zoo, city, state, midwest, country, world); teachermade maps; and overhead map transparencies.

METHODS/ORDER: The teacher displays a collection of maps on a bulletin board including: city, state, county, world, amusement park, zoo, 500 Track, Chapel Glen School, Children's Museum, neighborhood groceries, etc. Various kinds of map keys will be included in the discussion of the maps. The children will be allowed to handle the maps in small groups and have a chance to confer during a teacher-led discussion. The group will be brought back together to make a classroom map (each with his/her own rough paper draft to fill in). Further, they will help locate and mark with pins their own homes on a large, community, wall map. Discussion would follow relating other areas that the children frequent i.e. churches, parks, community center, etc.

APPLICATION/PRACTICE: These activities will make the students aware that different types of maps exist and give them a chance to relate their own cultures through the use of the large wall map. This will promote an understanding between the children concerning their home locations and their school location.

Additional Activities: People maps (children represent objects as a tree, shrubs, playground equipment, etc.); floor maps drawn in chalk on classroom carpet; construct 3-D maps.

EVALUATION: A variety of evaluation techniques should be used to measure student mastery of the skills and concepts in this lesson plan. Since the teaching methods have been varied to meet different learning styles, the evaluation and measurement methods should include different approaches as well. Please refer to the "Teaching and Evaluating" section.



Week 1	Week 2	Week 3	Week 4

Name _____

12 Ways To Save Our *Earth*

Check off each item that you and your family try in each of the next four weeks. **You** can make a difference!

1. Don't litter. Winds can carry trash into nearby waterways and into the ocean. Pick up any litter that you see. Set a good example.
2. Cut down on your trash. Reuse and repair items whenever possible.
3. Ask for paper bags, not plastic ones, at stores. Reuse the paper bags.
4. Use mugs or glasses instead of disposable cups. Use cloth towels and rags instead of paper towels. Use cloth napkins instead of paper napkins.
5. Ask for paper containers instead of Styrofoam for fast-food items. Styrofoam and plastics don't break down in the environment.
6. Collect newspapers, glass, cans, and plastics for recycling. If your community doesn't have a recycling center, work to get one set up.
7. Use liquid laundry detergents which do not contain phosphates. Phosphates stimulate the growth of algae. As algae die, their decay pollutes water.
8. Conserve water from your faucet. This helps to conserve your water supply and won't overwork the septic or sewage system.
9. Buy foods packed in cardboard instead of plastics. Choose items such as milk, eggs, condiments, soda, and juice that are available in recyclable packaging.
10. Use household chemicals *completely* before disposing of the containers. These chemicals can seep into groundwater at landfills.
11. Limit your use of pesticides and herbicides including lawn care products. These products are toxic and can wash into the nearest waterway.
12. Write a letter to your representatives in Congress. Urge them to pass laws to protect the ocean, prevent ocean dumping, reduce the use of plastics and toxics, and require recycling of wastes.

GAW Activities

at CRESTON JUNIOR HIGH SCHOOL

1988/89 National Geography Awareness Week Activities

Social Studies

John Allen had the students participate in a **current events** game in which the students located their news stories on a large, visual map placed in the classroom, ("post-its" were used). The game was successful because the students learned to connect global locations with news events.

Karen Auble had the students perform the various activities within the geography awareness week packet. They designed posters that illustrated ways to preserve the environment using their own ideas and talents. Class discussions led the students to further comprehend the concept of global environmental management responsibility. Also, Karen had the students map the Revolutionary War battles. Both activities were received and performed well by most of the students.

John Quick had the students discuss current events in Germany and Berlin. They drew maps of Germany and of East/West Berlin, so, that they might better understand the problems within the area. Also, a unit on the Middle East and North Africa were started by drawing a political map of the area. Students really enjoy doing the maps, and they are better able to visualize what is occurring.

Jane Smith coordinates the Geography Awareness Week activities at Creston Junior High School. She had the students discuss current events relevent to GAW topics, focusing on global environmental conservation. Students brainstormed and discussed various ideas regarding electrical energy conservation. Jane's classes watched the "Rainforest" video and discussed associated impacts and geographical locations. The class mapped vegetation zones of the world. Posters of conservation/environmental issues were assembled and displayed. Cartoons and comic strips regarding conservation/environmental issues were collected and were discussed. World resources and their locations were identified. A field-trip was taken to IUPUI to view the various items used by a geographer.

Foreign Language

Sandy Alvarado introduced reviewed hispanic-related countries, capitols, and locations. Christmas customs in the Latin American countries were discussed and projects regarding said customs were done by the students. Also, the "Ballet Folclorico of Mexico", a video and worksheet series, were watched and done by the class. The students enjoyed the interactive work with the video. And they enjoyed the Christmas-related activities which were pertinent at this time of year.

Margaret Bartnick had the students identify each European country and its capitol and its neighboring countries in German. She designed two worksheets and a crossword puzzle to help with identification and location. Flashcards that indicated various cues were utilized by the

students to further develop a sense of place.

Math

Dick Beeson developed a worksheet which uses the shapes of the 50 states as the "unknown" variable; the answer to each question is the order that the state came into the Union. See attached examples. This lesson enabled the students to relate history, geography, and math.

Jina Wilson, also, developed 2 worksheets that incorporated geography into an pre-algebra assignment. See attached examples. Review the name of the states prior to beginning; otherwise, the students focus on naming the states instead of on the mathematics. Again, the students had to learn the states in order to complete the lesson successfully.

Language Arts

Deborah Bova had the students use an African map project from a Social Studies lesson to write a report on Africa. Also, the students performed an activity regarding "SAKI", which was mapped on a global map. Both exercises proved that maps can be read and interpreted and utilized as well as, if not better than, the written word.

Rich Dayment had the students take part in a reference-based geography assignment which took place in the media center. The assignment had the students locate books and materials that answered questions regarding the American states. This lesson could be tied in with several other disciplines and/or activities, and it allowed the students to realize that geographical information is at their fingertips.

Dixie Singer had the students write in their weekly journals a "Walking Across the U.S." journal entry. Students wrote about trips that they took to other places. Emphasis was placed on location and human/environmental interactions.

Tom Stader incorporated a study of short stories into geographical activities using the books "Paul Bunyon" and "The Land and The Water". A discussion of human/environmental interactions took place pre-reading. The students then re-wrote the end to each story with the idea that a natural environmental phenomena took place that changed the end of the story. Tom combined this activity with the current grammar study of adjectives. Each student circled all of the adjectives they used in their story. Teams of students select the best story-ending within that team. Eventually, a class winner is selected by all students. Stressing the interactions that humans have with the environment in relation to a geographic sense allows the students to relate several concepts. The lesson allowed the students to relate several content areas.

Sharon Tucker had the students introduce a political candidate as written from a few scripts with an accent that the students select. Play several tapes of different accents as an introduction to the lesson, so, that the students may begin to associate the various languages with people,

customs, regions, and lifestyles.

Margaret Wade had the students use all spelling vocabulary which related to geography. She, also, reviewed older geographical terminology and said origins (atlas) and mythological words (names of towns from classical mythology). Also, the class discussed the displacement of animal habitats due to building projects. A dinner menu was developed by each student that stressed a geographical origin. Many different aspects of geography were brought in for the students to relate.

Music

Cheryl Pfaser had the orchestra students make a video of foreign selections for the school's International Fair 1990. The students learned that different types of music have different geographic origins.

Home Economics

Ginger A. Meece had her students discuss and share recipes that had been handed down through their families. She also had cookbooks and foreign foods puzzles for the students to work with. The most successful activity Ginger had was a video filmstrip on "Exploring International Foods." The filmstrip was colorful, interesting, and included history and geography as well as information about food. This allowed the students to see why many foods originate in different regions. One enhancement to this project would be to have a world map placed on the bullentin board. This way the student could get a better idea of where the region being discussed is located.

Industrial Arts

William B. Houghan showed, with the use of a U. S. map, where the different types of woods used in class come from. He and his students discussed the wood's cost, location, transportation distances and routes, and the abundance in variety. Another activity William did was to have is students make clocks in the shape of a state and place a star where the capitol is. For example, a student born in Kentucky might want to make a clock in the shape of that particular state. Students might also want to make clocks in the shape of countries. By having students do hands on work by making these clocks, they learn the shapes of the state or country better.

General Business

Linda Headdy had the students watch a video on the history of money. Students, then, examined various dollar bills to search for the 12 Federal Reserve Banks. They compiled a list of the 12 banks and then located them on a U.S. map. The lesson actively involved students in something that they all were interested in. It showed the students location is a very important concept in relation to the human environment.

Dawn Troxel had the students study rates of exchange (focusing on the U.S. dollar relative to other countries). By mapping the various locations of the various types of currencies, students better understood the importance of geographical locations and of global interactions in regards to the global economy.

Cafeteria

Helen Collins helped Jane Smith to plan a menu which stressed geographical origins. The entire school enjoyed having the different variety.

Art

The entire art department had the students focus on studying art form from various global regions. This allowed the students to visualize actual regional trends through time and through movement.

Name _____ National Geography Equation Worksheet

* Solve for the Unknown - Show all steps - See #1 for Example

①  $+ \cancel{21} = 40$
$- \cancel{21} \quad -21$

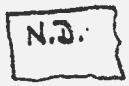
Indiana = 19th

②  $+ 39 =$

③  $- 12 =$

④ 3  $=$

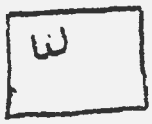
⑤  / 7 $=$

⑥ 

$\div 13 =$

⑦ 9  $=$

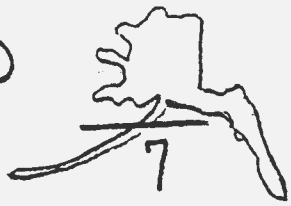
⑧ $30 +$  $=$

⑨ 

/ 11 $=$

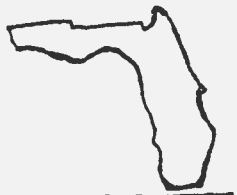
⑩  / 7 $=$

⑪ 3  $=$

⑫  / 7 $=$

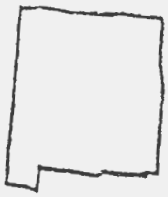
⑬  $+ 11 =$

⑭  $- 18 =$

⑮  / 3 $=$

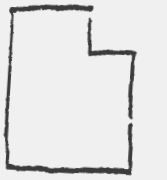
16  · 5 =

17 50 +  =

18  − 23 =

19  · 8 =

20  ÷ 7 =

21  / 9 =

22  · 7 =

23  − 5 =

24  · 7 =

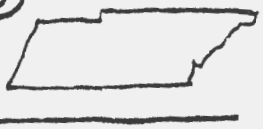
25  − 2 =

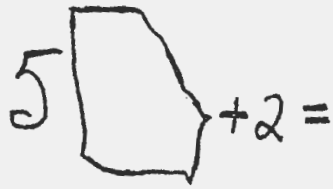
26  · 2 =

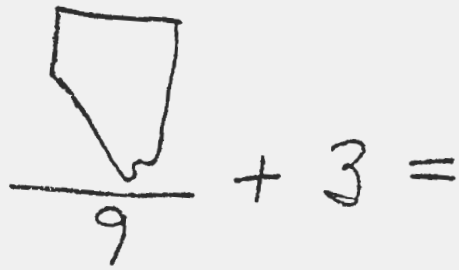
27  + 30 =

28  · 5 =

29  − 2 =

30  / 8 =

31 

32 

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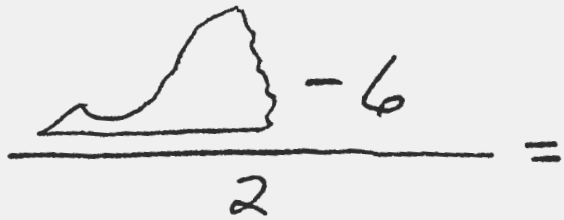
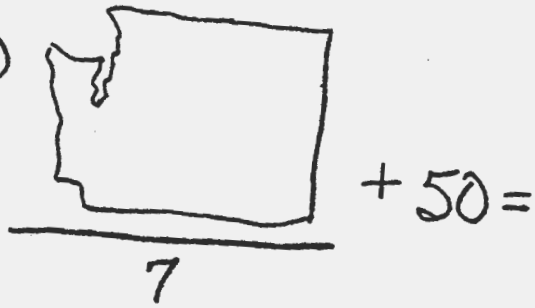
34 

35 

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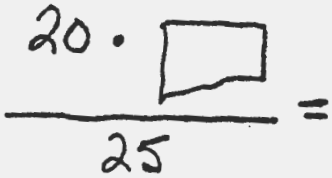
37 

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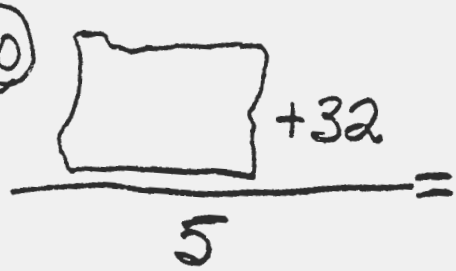
40 

FRACTION WORKSHEET NAME_____

** SUBSTITUTE THE SPECIFIED VALUES IN FOR THE STATE AND SOLVE.

1. Texas = r + Michigan
2. Indiana + Georgia = a
3. y - Nevada = Pennsylvania
4. x + Georgia = California
5. Washington + Illinois = b
6. Tennessee - Ohio = w
7. Alabama - Kentucky =z
8. Maine - Oregon = t
9. x = Idaho = New York
10. m - New Mexico = Wyoming
11. b - Wisconsin = Missouri
12. Florida + x = Arizona
13. Mississippi + North Carolina + North Dakota = v
14. Colorado - Montana = r
15. Utah + North Carolina = q
16. Virginia - New York = p
17. South Dakota - Iowa = u
18. d + Vermont = South Carolina
19. Kansas + c = Arkansas
20. West Virginia + Kansas = f
21. x = Oklahoma + Minnesota
22. Louisiana + Maryland = w
23. New Jersey - Delaware = y
24. Conneticut + Rhode Island = p
25. x + Alaska = Hawaii

41. $(2 \cdot \square) + 7 =$

42. $2 \cdot (\boxed{C} + 12) =$

43. $25 + (\square \cdot 4) =$

44. $\dfrac{\square}{8} + 55 =$

45. $3\,\square + 7 =$

46. $\dfrac{\square + 20}{7} =$

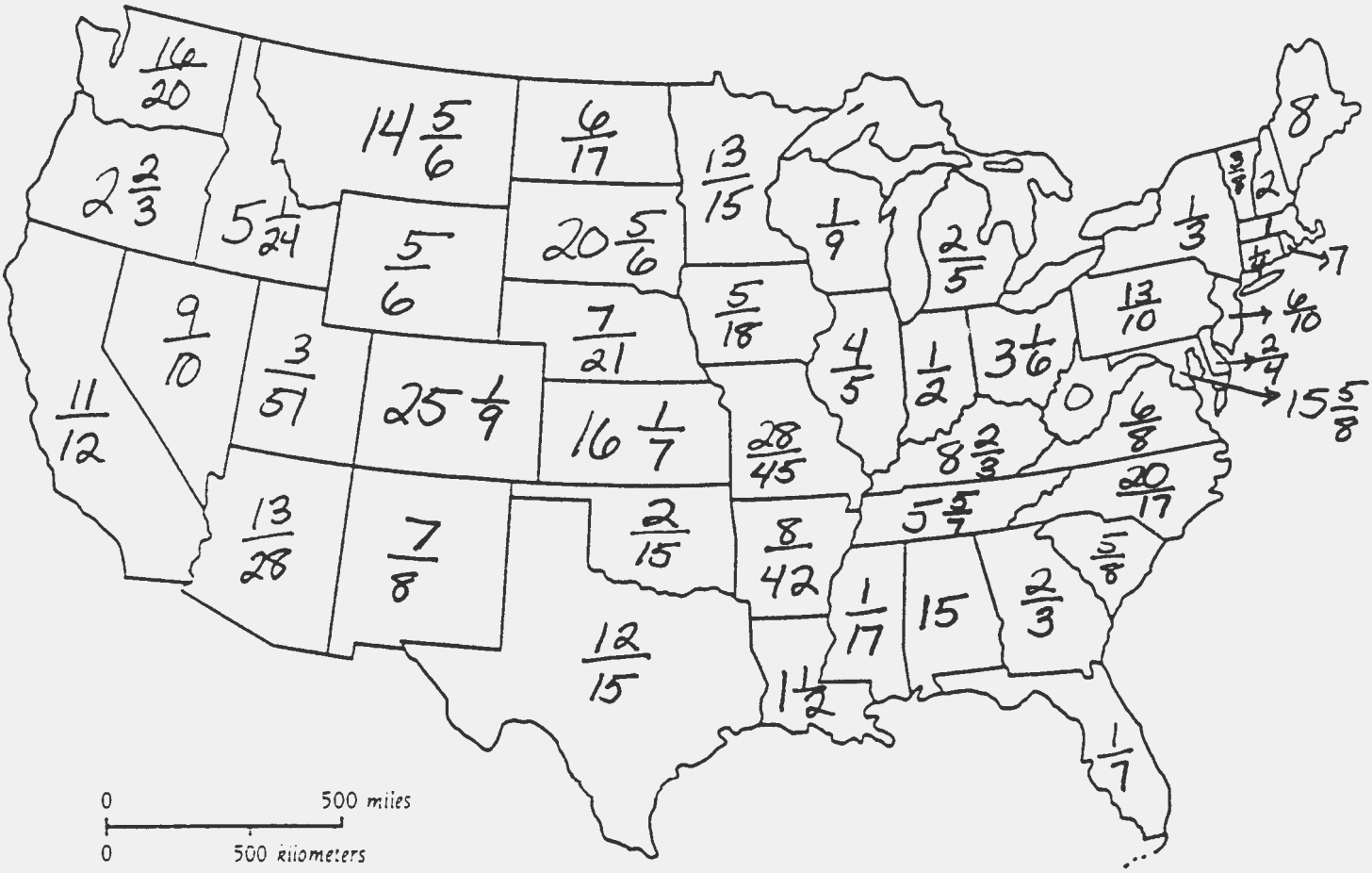
47. $\dfrac{\boxed{S.D.}}{8} - 2 =$

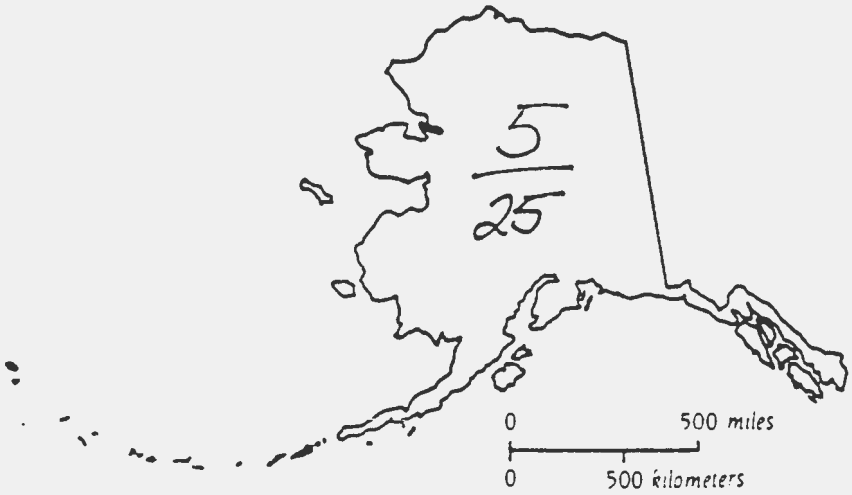
48. $\dfrac{\square \cdot 7}{10} =$

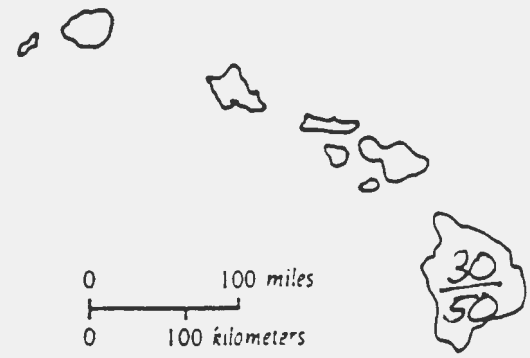
49. $(\square \cdot 6) + 14 =$

50. $\dfrac{\square + 6}{5} =$

united states







INTEGER REVIEW WORKSHEET NAME _____

**IN THE FOLLOWING PROBLEMS, FIND THE STATE SPECIFIED AND SUBSTITUTE THE INTEGER BACK INTO THE PROBLEM THEN SOLVE.

1. Indiana + Texas + Michigan=

2. Washington - Kansas=

3. New Mexico x Vermont=

4. $\frac{\text{Florida}}{\text{Massachusetts}}$ =

5. Mississippi + Alabama - Georgia =

6. Utah x North Dakota =

7. $\frac{\text{Idaho}}{\text{Ohio}}$ =

8. South Carolina + North Carolina - Virginia =

9. Arizona x Oregon =

10. Wisconsin + New York + New Hampshire =

11. West Virginia - Tennessee =

12. Alaska / Arkansas =

13. Hawaii x Arkansas + Colorado - Missouri =

14. California + New Jersey + Rhode Island =

15. Minnesota - South Dakota =

16. Conneticutt x Maine =

17. Utah + Indiana - Ohio x North Dakota =

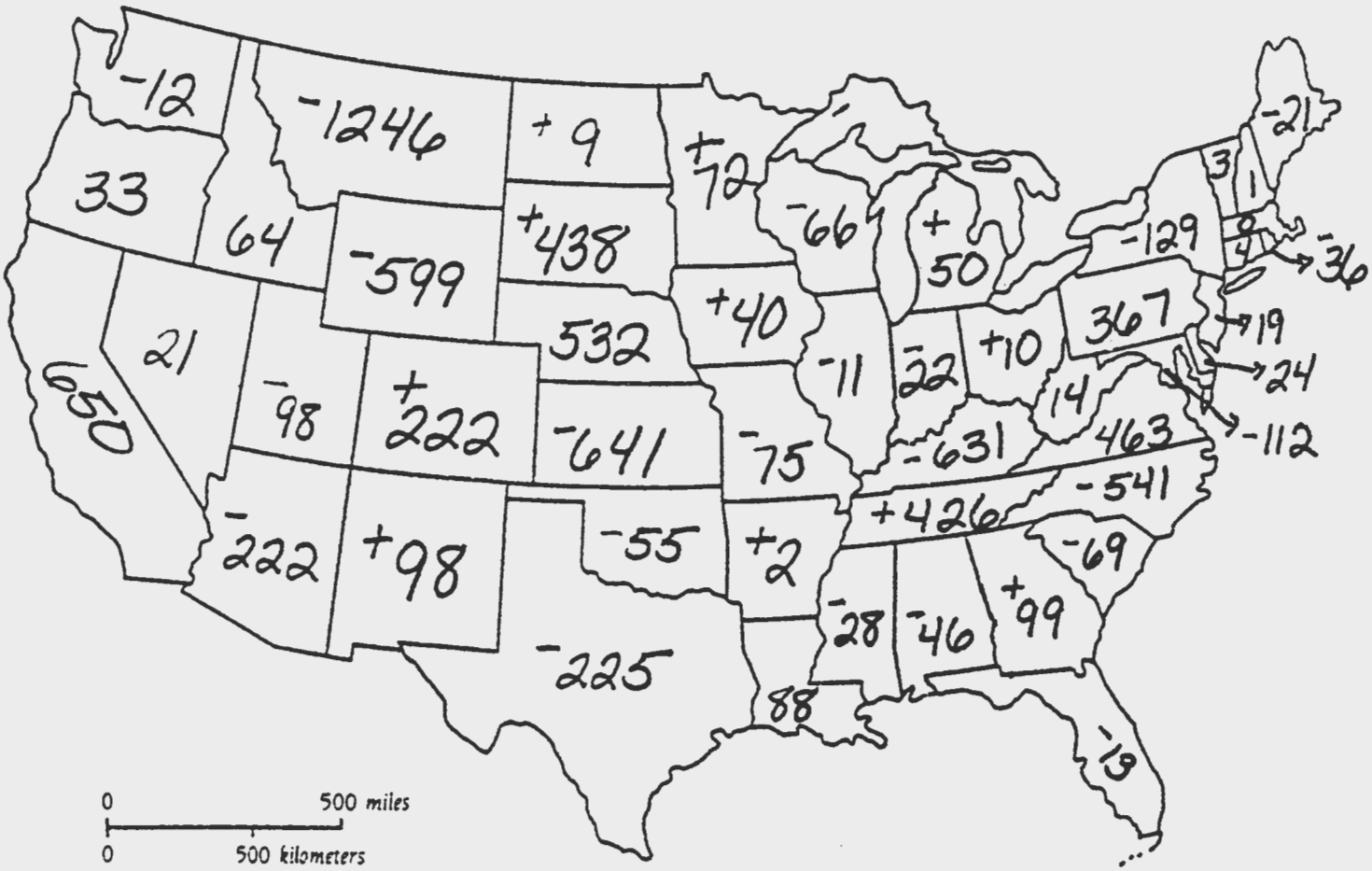
18. Louisiana x Florida + Georgia - Alabama =

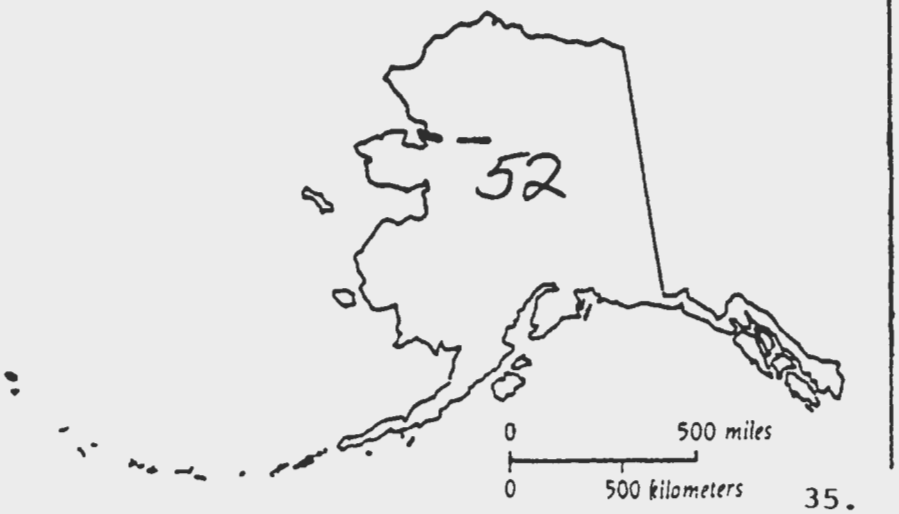
19. Hawaii + Alaska + Oregon - Montana =

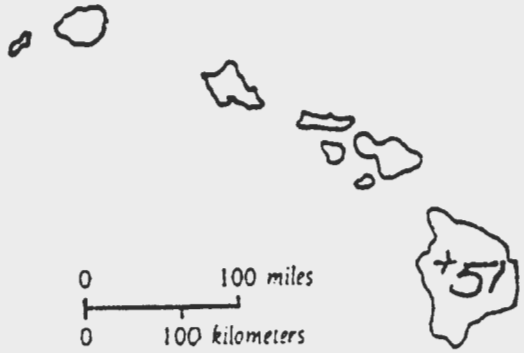
20. Iowa -New Mexico + Kansas x Ohio =

21. Pennsylvania - New York =

united states







Pat Oden, Fort Worth

A WHOLE LOT OF TRAVELING GOING ON

I. Objectives
   A. To familiarize students with a political, highway map
   B. To map an itinerary
   C. To figure mileage, cost and time travelled
   D. To record geographic data, tourist attractions, major cities and towns
   E. To record impressions and descriptions of the trip in student's journal

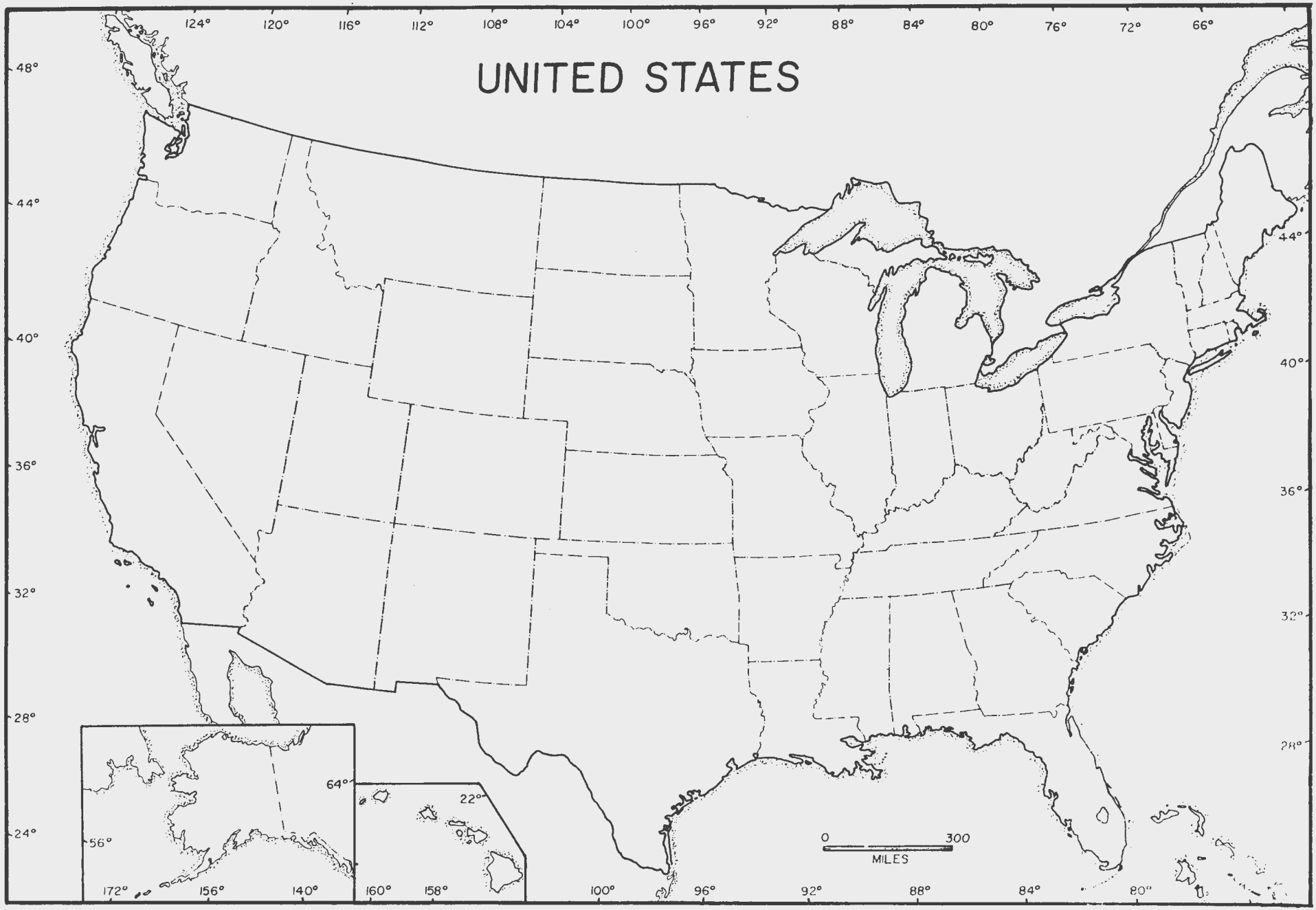
II. Materials Needed: Highway maps, markers, log sheets, student journals, reference books (atlases, almanacs, travel guides)

III. Procedure:

Each student is given a map with the assignment (origin and destination) clipped to it. Everyone has his own individual assignment. This activity was planned for the last six weeks of the year so that we had covered all of the U.S. regions previously. When making the assignments, I tried to choose a region that the student had shown an interest in. We had everything from a trip from Fort Worth to New Orleans to the famous dogsled race route in Alaska from Anchorage to Nome. One child wanted to go to Chicago from Fort Worth because her grandparents live there. The most satisfying for me was a trip to Nashville, TN because a student was moving there in the summer, and she was apprehensive about it. By the time that she finished her trip she was familiar with the region and had her parents involved, too.

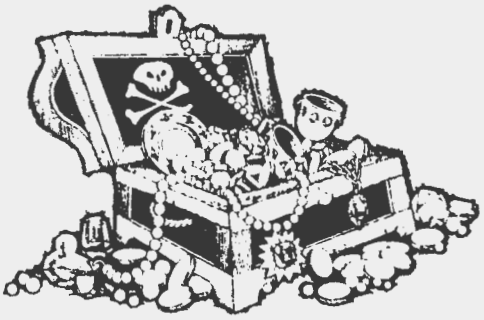
IV. Evaluation:
   A. Completion of map, travel log, and journal
   B. Content of travel log
   C. Accuracy of itinerary on map
   D. Journal

TRAVEL LOG: Write the origin, destination, route, highways, directions, interstates, roads, landforms, lakes, rivers, topography, cities, towns, length of time traveled, approximate gasoline required, possible food encountered, lodging, entertainment, state or national parks, agricultural regions, and purpose of the trip. Use your imagination!


UNITED STATES
124°
120°
116°
112°
108°
104°
100°
96°
92°
88°
84°
80°
76°
72°
66°
48°
44°
40°
36°
32°
28°
24°
0
300
MILES
64°
56°
172°
156°
140°
22°
160°
158°

Pirates!

M. Gail Hickey



The very word conjures up images of swashbuckling villains, skull and crossbones, treasure chests, and gold doubloons. Mention it to children and watch them shiver in delight!

Kids' imaginations are readily sparked by pirates, but their visions may be colored more by media myth than historic fact. Where and when did these seafaring rogues exist? What was it like to be one? An in-depth look at these and other questions can help students differentiate between pirate fact and fancy. Pirate-based activities can be planned as an interdisciplinary unit, reinforcing a wide range of skills from geography to creative writing. Here is a set of teaching activities for a mini-unit on pirates.

Introduce the unit by reading stories about pirates from books such as those listed in the Reference section.

Captain's Log

Any pirate worth his salt knows who his friends and enemies are! Set up a center where children can use encyclopedias, dictionaries, and resource books to keep track of important names, events, and vocabulary terms in their own "Captain's Log" to serve as a handy reference guide during their study of pirates.

Pirate or Buccaneer?

Objective:

To demonstrate an understanding of the distinctions between the terms "pirate" and "buccaneer."

Piracy is robbery on the high seas; *buccaneering* is piracy as practiced in Spanish America in the seventeenth and eighteenth centuries. Have students consider this distinction when completing their "Captain's Log," dividing the names on their list into "pirate" and "buccaneer." Do the two lists seem to have anything in common? Have students consult a world map. Which was more widespread—buccaneering or piracy? Why?

Materials:

World maps, books about pirates (McCall's *Pirates and Privateers*; Stockton's *Buccaneers and Pirates of our Coasts*), encyclopedia.

"X" Marks the Spot!

Objective:

To reinforce map-making and map-reading skills.

The only materials needed for this activity are several objects of "treasure." These may be foil-wrapped cardboard shapes, play money, or inexpensive treats. Divide the class into groups of three or four. Provide each group with their "treasure," and instruct them to "bury" it in the school yard or on the playground. (They should hide it under leaves or otherwise conceal the objects rather than digging a hole.) Each group will need time to "bury" their treasure privately. It may facilitate things if you secretly designate an area of the school yard for each group so that a later group does not accidentally "find" the hidden treasure.

After hiding their treasure, each group will design a map of the school yard and include clues to the buried treasure spot. They must create their own symbols, key, and scale. Directions for following the map should be written in such a way that other groups can understand them, yet not reveal the location of the treasure outright.

Once treasures are buried and maps completed, the groups swap maps and hunt for each others' treasure trove. Remember—secrecy is essential!

Pirates and Privateers

Objectives:

To develop an understanding of the distinctions between "pirates" and "privateers."

To explain why piracy and privateering were supported in some regions while being outlawed in others.

To synthesize available information and determine modern evidence that piracy once existed.

During the time of conflict between England, France, and Spain, battles were frequently fought on the ocean. Sometimes the governments gave sailors permission to attack enemy ships, killing people and stealing anything they could. These sailors were called *privateers*. *Pirates*, on the other hand, operated *without* governmental authorization or loyalty to a particular country.

Use the following simulation activity to emphasize the differences in the two terms.

As you write the words "pirate" and "privateer" on the board, have two other teachers enter the classroom, and without warning, grab one or more favorite classroom materials (visual aids, etc.), dramatically removing them from the room—under protest from you. Just before they get out the door, they should clearly state that they have permission from the principal. At the same time, have two students from another class enter the room and do the same thing. After the teachers leave with "confiscated" materials, the visiting students begin to leave, also under protest from you. They should dramatically "steal" the materials, insisting that they *like* them and *want* them for their own.

Following the scenario, ask students these questions:

- What happened?
- Why did the teachers take our materials?
- Why did the students take our materials?
- If someone has permission from the principal—or the president—to take things from others, is it okay to do it?
- What about when they don't have permission?

This activity can be continued by asking the following questions:

- Was privateering used only during times of war?
- What countries were most likely to employ it?
- Is piracy considered a crime against the state, the nation, or international governments?
- What kinds of things did people do to protect themselves and their villages against pirates? Against privateers?
- Have governments made laws or regulations protecting the people from pirates and/or privateers?
- What reminders do we have today that people once tried to protect themselves against pirates and privateers?

Materials:

Books about pirates such as McCall's *Pirates and Privateers*.

Continental Comparison

Objective:

To provide reinforcement of knowledge of the seven continents and map-reading skills.

Have students use the resource books on pirates to pinpoint areas on the world map most frequently hit by pirate attack. (They might place a red dot on each city or small country known to have been attacked.) Have them count the number of dots on their maps for each continent, and write the number in a column labeled with the continent's name.

Use these questions to facilitate discussion:

- Which continents were attacked most often?
- Where are they located geographically?
- Why do you think these areas were considered better targets by pirates?
- Which areas do you think might be subject to attack by "modern pirates"? Why?

Materials:

Books about pirates, duplicated copies of a world map, colored pens or pencils, paper.

Women and Pirates

Objective:

To provide students with an opportunity to think about women in the non-traditional role of pirate.

When we think of women and pirates, we usually think about the prisoners pirates often took aboard their ships. There were two women, however, who went down in history—not as prisoners of pirates—but as *pirates!*

Ann Bonny and Mary Reed were female pirates. Have your students investigate the lives of these women and include them in their "Captain's Log." The fate of Ann Bonny is still unknown, so you may wish to have students engage in the following creative writing/thinking activity:

Write a poem about the life of Ann Bonny. Tell about her childhood, her years of piracy, and her capture. Imagine what might have *really* happened to her—tell about it in your poem!

Materials:

Books about pirates (Gosse's *The Pirates' Who's Who*), encyclopedia, paper, pencils.

For more creative writing activities, try these:

Delegation for Defense

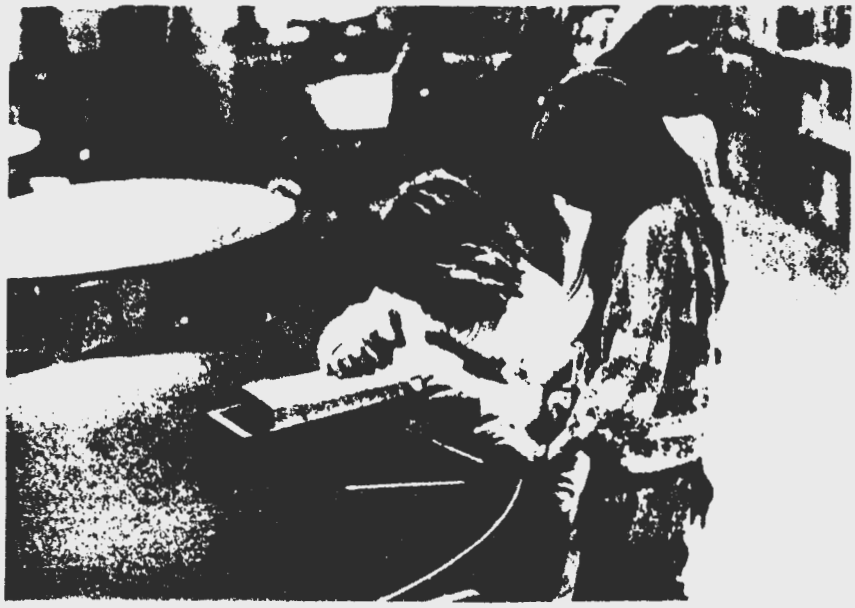
Objective:

To help students comprehend the impact of piracy upon the social, economic, and political environment of a region.

Pretend you are a member of a delegation appointed by the governor of Charleston, South Carolina, to help protect the eastern coast of North America from attack by pirates. The year is 1718. Study a map of the region. What can you discover about landforms, waterways, natural resources, and people that will help you formulate a plan of defense? Write a report of your findings for the governor.

Materials:

Map of colonial America, paper, pencils, report covers.



Kirkwood (Missouri) School District

Help!

Objective:

To provide an opportunity to apply geographic concepts within a creative writing exercise.

You have been captured by a band of pirates who attacked your village on the Georgia coast. The only means of communication available to you is to put a note in a bottle, drop it over the side of the ship, and hope you are rescued. If the pirates catch you, you'll have to walk the plank, so you must plan carefully both *what* to write and *when* you'll have the chance to write it.

How will you find out which direction the ship is heading without arousing suspicion? Where were you captured in relation to where you are going? What does the nearby landscape tell you about the regions being bypassed? Are there islands or rocky areas to be navigated around? In which direction will the ocean currents carry your bottle, once it is dropped? What can you assume abut the people who may eventually find your letter?

Write an account of your capture, the voyage, and your rescue, using the answers to these questions. Draw a map showing the region you describe.

Materials:

Atlas and/or map of Georgia coast, paper, pencils.

Culminating Activities

As you wind up your study of these racy rogues, consider showing one of the several old movies about pirates that were made when Hollywood was in its heyday, such as "The Crimson Pirate," "The Buccaneers", or "The Pirates of Penzanze." Use the time following the film to review aspects of pirate fact and fancy—what do students know now about pirates and the era during which they lived? How well (or poorly) does the movie industry depict historical fact?

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A Neighborhood Walk and Treasure-Hunt

Spend an hour or so walking through the area around your school. Have students gather as much information as they can to give them an image of the neighborhood: the ways people live there, the things that make up its fabric, the things people share there. Any neighborhood has its own unique combination of reasons that give it definition and its own sense of place.

HISTORY

Find pictures of your community that go back as far as possible. Study the pictures before your walk.

What do the pictures reveal about...
- the natural landscape?
- native vegetation?
- change in land use?
- transportation uses?
- uses that are unchanged?

SURVEY

Ask people around the school community what features in the environment they value and why they live there.

-beaches	-privacy
-hills	-view
-trees	-proximity to things
-climate	-grew up there

MAPPING

Make a map as you walk around your school neighborhood. Show,

*paths - sidewalks, streets, alleys, boulevards, freeways, etc.
*landmarks - school, houses, stores, fire-stations, bus stops, gas-stations, markets, banks, churches, etc.
*directions - north, south, east, west.
*your route - mark your route in red arrows.

PARENT SURVEY

Survey the parents and teachers of your school.

-How did your family happen to settle in this city?

List and rank the reasons.

What does this tell you about the development of the city?

TREASURE HUNT

Find something in the school neighborhood that is -

open _____
soft _____
young _____
old _____
dead _____
lively _____
real _____
artificial _____
public _____
safe _____
dangerous _____
past _____
future _____
closed _____
hard _____
planned _____
accidental _____
recreational _____
commercial _____
industrial _____
residential _____
high _____
low _____
barriers _____
crossable _____
temporary _____
permanent _____

RESEARCH STREETS AND SIDEWALKS

Sometimes sidewalks, manholes, lampposts, and other things have dates on them. Look for some. What is the earliest date you can find? How did the streets get their names? Who named them?

Team Photographer _____ Team Interviewer _____

SURVEY 1: Historical Inquiry

(1-2 team members)
-Research the history of your school. Use shcool records, photographs, etc.
-What has been the pattern of ethnic minorities moving in and out of the school?
-Document your survey (research) with dates, xerox photographs, sketches, etc.

Team members _____
_____

SURVEY 2: Window Survey

(1-2 team members)
-Walk through your survey area (neighborhood), paying close attention to and counting the,
- -industries
- -businesses
- -transportation
- -parks
- -landmarks
- -open spaces
- -homes
- -apartments
- -paths

-As you do your neighborhood walking survey, ask yourself:
- -How old is it?
- -What is the density?
- -What is the intensity?
- -How is it landscaped?
- -Describe the facade.
- -What condition is it in?
- -Why was it built there?
- -What is its function?

Team members _____
_____

SURVEY 3: Things in your Neighborhood Not Often Counted (Adapted from Victor Gruen Center)

(1-2 team members)

-Survey the things in your neighborhood that are not normally counted. For example, try counting the number of:

- -swings
- -garbage cans
- -bus stops
- -people hanging out
- -abandoned cars
- -broken windows
- -trees
- -kids in school
- -kids out of school
- -stop signs
- -landmarks
- -people over 65
- -child care centers
- -places you cannot get into
- -cracks in the sidewalk
- -public parks
- -teen centers
- -fire alarm boxes
- -police cars
- -wire fences

-What king of statement can you make about your area of the community from this exercise of counting?

Team members _____
_____

SURVEY 4: Neighborhood Treasure Hunt (Adapted from Victor Gruen Center)

(All members of the team)

-Try finding some of the following:
- -something that looks like you
- -something soft
- -a relic of the past
- -something scary
- -a secret
- -a hiding place
- -something free
- -patriotism
- -an omen of the future
- -magic
- -something enticing
- -a tribe
- -solitude
- -something rotten
- -a moral
- -a place to sit
- -something racist
- -something you look at with pleasure

INTERVIEW

Find some old-timers in the neighborhood, or even a teacher who has been at the school for a long time. Ask,
Is this place like it used to be?
How is it different?
What things are unchanged?
Is it better or worse? Why?
What did you like about the way it was?
What do you like best now?

IMAGINING

Sit in a quiet place with a good view of the school area.
Imagine what you would have seen from this spot,
...5 years ago.
...25 years ago.
...100 years ago.
What about the future?
...in 5 years?
...in 25 years?
...in 100 years?

WRITING

What can you now say about the school community, its history, its problems, and its opportunities? Use your notes and maps, your treasure hunt finds, your interviews and surveys, photographs and imaginings to write a description of your walk.

Putting Current Events on the Map

Linda Frederickson
Jim Selby

Description:
Recently, there has been much discussion about the lack of knowledge by American students concerning location of places in the news. This activity helps students become more aware of the geographic location of current events. Students not only learn what is happening in the world, but also where the event occurred. Students receive a handout containing recent newspaper clippings that concern a specific place, usually a city, country, or region. Using an atlas, the students locate each place, and plot them on an appropriate outline map. This exercise is designed for use in a World Geography course at the 9th-12th grade level.

Learning Outcomes:
1. Students will be able to locate sites of interest in world, national, and local events by city, country, or region.
2. Students will locate and map locations by longitude and latitude if the location is a city or town, and map countries or regions with shading or colors on a base map.
3. Students will learn both relative and absolute locations of a variety of newsworthy places.

Essential Elements: World Geography Studies, Grade 9-12:
2A locate and describe major landforms and features of the Earth
2E locate the major nations and regions of the world

Fundamental Geographic Themes:
Location
Place
Regions

Related Learning Opportunities:
Current Events
History

Classroom Procedures:
1. Prepare a handout (example is enclosed) of headlines and small newspaper clippings that have specific references to places; towns, cities, countries, physical features, and/or regions. The included example was derived from several sources, and an effort was made to include articles concerning positive events, while not totally sheltering the class from the realities of the world. The clippings can be arranged on the sheets in collage format, and sorted into pages referring to either world or U.S. or state events to conform to the base maps provided. Although this activity is designed for world current events, the same format could be followed for any state, country, or region. The locations are chosen by the teacher as the newspaper clippings are selected.

2. Explain the learning objectives of the lesson. Distribute copies of the newspaper clipping handout and the base maps.

3. Tell the students: "Using your atlas, find and map the location of the countries and cities described in the newspaper clippings. Put a dot on the provided base map to indicate the location of each city mentioned and write the name of the city next to the dot. If the city is the capital of a country or state, use a star to mark that location, and label with the name of the capital city. Where countries or states are to be put on your map, color or shade the area mentioned. Inside the outline of that country's boundary, write the name of the country. If the country is small, and the name will not fit, write the name nearby, but outside the country, and use an arrow to point from the country name to the area that you have shaded."

4. Allow students the full class period to complete the assignment.

5. Upon completion, review the correct answers with the students. An overhead transparency of each base map can be displayed, showing the places mapped correctly. As each location is shown to the students, the teacher should review the current event that occurred at that place and follow with an in class discussion of selected events.

Materials:
1. Atlas
2. World Geography textbook
3. Pencil or pen
4. Colored pencils
5. United States, World, and other necessary base maps

Evaluation:
Grade the outline map.
Students can also turn in a chart of places listed, followed by a brief summary of the event at that location.

WORLD RALLY SHEET

Group Name_____

Students: _____

_____

_____

_____

Checkpoint 1. Start at: 29°N 98°W and go to: 19°N 99°W

_____A. What international boundary did you cross?

_____B. What state are you in?

_____C. What political significance does this city have?

_____D. What mountain range lies to the west?

Checkpoint 2. 12°N 86°W

_____A. Name the three Mexican states you crossed.

_____A .

_____A .

_____B. What is the name of the large inland lake in this country?

_____C. What body of water is located to the west of this country?

Checkpoint 3. 18°N 77°W

_____A. What body of water did you cross?

_____B. What type of land area is this?

_____C. What is the closest country?

_____D. What is the name of the chain this country is part of?

Checkpoint 4. 22°S 42°W

_____A. What was the largest river you crossed?

_____B. What well-known parallel is 1 1/2 degrees south of checkpoint 4?

_____C. What season will it be if you are here in July?

Checkpoint 5. 33°S 18°E

_____A. What ocean did you cross?

_____B. Near what navigational point is this city located?

_____C. Name the port city located at about the same latitude, but on the east coast.

_____D. What is the desert 10 degrees north of this city?

Checkpoint 6. 33°N 35°E

_____A. What sea is located 2 degrees to the south?

_____B. What international canal did you cross or pass near?

_____C. What country is located adjacent and directly south?

Checkpoint 7. 41°N 12°E

_____A. Name the four countries bordering this country.

_____B. What four bodies of water border this country?

_____C. What island nation is located west of this country?

_____D. Name the mountains that border this country to the north.

Checkpoint 8. 51°N 0° E or W

_____A. What direction did you fly to get here?

_____B. How many degrees of latitude did you cross to get here?

_____C. What strait did you cross to get here?

One Hundred Per-Cent American, by Ralph Linton

There can be no question about the average American's Americanism, or his desire to perceive his precious heritage. Nevertheless, some insidious foreign ideas have already wormed their way into our civilization.

Thus, observe the patriotic American. Dawn finds him garbed in pajamas, a garment of East Indian origin. He is lying in a bed built on a pattern which originated in either Persia (now Iran), or Asia Minor. He is muffled to the ears in un-American materials: cotton, first domesticated in India; linen, domesticated in the Near East; wool from an animal native to Asia Minor (the Middle East); or silk, whose uses were first discovered by the Chinese. All of these substances have been transformed into cloth by methods invented in Southwestern Asia. If the weather is cold enough, he may be sleeping under an eiderdown quilt, invented in Scandinavia.

On awakening, he glances at the clock, a medieval European invention. Late, he rises in haste, and goes to the bathroom. Here, if he stops to think about it, he must feel himself in the presence of a great American institution. He will have heard stories of both the quality and frequency of foreign plumbing. In no other country does the average man perform his ablutions in the midst of such splendor.

But the insidious foreign influence pursues him even here. Glass was invented by the ancient Egyptians. The use of glazed tiles for floors and walls was developed in the Near East. Porcelain was invented in China. And the art of enameling on metal was developed by Mediterranean artisans of the Bronze Age. Even his bathtub and toilet are but slightly modified copies of Roman originals. The only purely American contribution to the ensemble is the steam radiator, against which our patriot very briefly and unintentionally places his posterior.

In the bathroom, the American washes with soap, invented by the ancient Gauls. Next he cleans his teeth, a subversive European practice which did not invade America until the latter part of the eighteenth century. He then shaves, a masochistic rite developed by the heathen priests of ancient Egypt and Sumeria. The process is made less of a penance by the fact that his razor is of steel, an iron-carbon alloy, discovered in either India or Turkestan. Lastly, he dries himself on a Turkish towel.

Returning to the bedroom, the unconscious victim of un-American practices removes his clothes from a chair, invented in the Near East, and proceeds to dress. He puts on close-fitting tailored garments whose form derives from the skin clothing of the ancient nomads of the Asiatic steppes. He fastens them with buttons whose prototypes appeared in Europe at the close of the Stone Age. This costume is appropriate enough for outdoor exercise in a cold climate. But it is quite unsuited to American summers and heated houses. Nevertheless, foreign ideas and habits hold the unfortunate man in thrall even when common sense tells him that the authentically American costume of G-string and moccasins would be far more comfortable.

He puts on his feet stiff coverings made from hide prepared by a process invented in ancient Egypt and cut to a pattern which can be traced back to ancient Greece. Then he makes sure that they are properly polished, also a Greek idea. Lastly, he ties about his neck a strip of bright-colored cloth which is a vestigial survival of the shoulder shawls worn by seventeenth-century Croatians. He gives himself a final appraisal in the mirror, an old Mediterranean invention, and goes downstairs to breakfast.

Here a whole new series of foreign things confronts him. His food and drink are placed before him in pottery vessels, the popular name of which-- China, is sufficient evidence of their origin. His fork is a Medieval Italian invention. His spoon is a copy of a Roman original. He will usually begin the meal with coffee, an Abyssinian plant first discovered by the Arabs. The American is quite likely to need it to dispel the morning-after effects of overindulgence in fermented drinks, invented in the Near East; or distilled ones, invented by the alchemists of medieval Europe. Whereas the Arabs took their coffee straight, he will probably sweeten it with sugar, discovered in India; and dilute it with cream. Both the domestication of cattle and the technique of milking originated in Asia Minor.

If our patriot is old-fashioned enough to adhere to the so-called American breakfast, his coffee will be accompanied by an orange, domesticated in the Mediterranean region, a cantaloupe domesticated in Persia, or grapes domesticated in Asia Minor. He will follow this with a bowl of cereal made from grain domesticated in the Near East and prepared by methods also invented there. From this he will go on to waffles, a Scandinavian invention, with plenty of butter, originally a Near-Eastern cosmetic. As a side dish he may have the egg of a bird domesticated in Southeastern Asia or strips of the flesh of an animal domesticated in the same region. The latter will have been slated and smoked by a process invented in Northern Europe.

Breakfast over, he sets out for work. If it looks like rain, our patriot puts on outer shoes of rubber, discovered by the ancient Mexicans. He will also take an umbrella, invented in India. He then sprints for his train-- the train, not sprinting, being an English invention. At the station he pauses for a moment to buy a newspaper, paying for it with with coins invented in ancient Lydia.

Once on board the train, our patriot settles back to inhale the fumes of a cigarette invented in Mexico, or a cigar invented in Brazil. Meanwhile, he reads the news of the day, imprinted in characters invented by the ancient Semites by a process invented in Germany upon a material invented in China. He scans the latest editorial pointing out the threat which foreign ideas pose to our American way of life. In total agreement our patriot will not fail to thank a Hebrew God in an Indo-European language that he is a one hundred percent (decimal system invented by the Greeks) American (from Americus Vespucci, an Italian geographer).

From: Ralph Linton, "One Hundred Per-Cent American," The American Mercury, vol. 50, 1937, pp. 427-429.

Where Did I Come From. . .
How Did I Get Here?

Description:
This activity introduces students to the concept of ethnic heritage. Students gain an understanding of the geographical, human, and physical qualities that contributed to their ethnic heritage, and that of other students. The students will draw general conclusions about their identity, and its contribution to their heritage as Americans. This activity can be based on a student's family origins, or other ethnic group of the student's choice. In most cases, the students will be encouraged to explore their own past. This activity was designed for middle school students, although it can provides an educational model that can easily be adapted to other learning levels and grades. Students are encouraged to use their creativity and imagination in working on a real-world question.

Learning Outcomes:
1. When students finish this activity they will be able to give an absolute location of their ancestral homeland.
2. Students will be able to give a relative location of their present home compared to the ancestral home of their family.
3. Students will be provided the opportunity to explore resources such as written history, oral history, artifacts, and folklore that have meaning to their past, present, and future.
4. Students will be able to provide a description of factors that lead to the migration of their ancestors.
5. Students will identify and discuss the physical environment of their ancestry as compared to their present physical environment.

Classroom Procedures:
1. Students will discuss what it is to be an American.
2. Students will read and discuss the article, "One Hundred Per-Cent American," by Hal Linton
3. The students will investigate how their families came to America.
4. Research topics are introduced, and students are provided with the attached instruction sheet
5. Students will make an oral presentation in class and turn in a booklet entitled "Where did I come from... How did I get here?"

Evaluation:
Students will be evaluated on the quality of data collection, concept, presentation, and content of project. This will include a discussion of their project in class and the written booklet turned in to the teacher.

Student Instructions:
1. Use the three base maps to plot the place of your family's origin and their present location. Example: give latitude and longitude for World, U.S., and Texas.
2. On the World map, use colored pencils to trace a possible route of travel your ancestors took to the U.S. Measure and record this distance in miles using the bar scale on maps in the Goode's World Atlas.
3. On the U.S. map, trace the paths your ancestors took once they reached the New World. Which path led your family to Texas? Use your map pencils to display these paths on your U.S. base map.
4. Trace your family's movement to their present home in Texas. Plot this on your Texas map using colored pencil. **Hint:** A good place to start might be where your parents got married. In some cases, students might have to use all three maps to plot this information.
5. Create a family tree, giving the names, dates of birth, date of marriage, place of birth, and place of marriage for the people that are your direct ancestors. This information should be displayed on the provided base maps. Create a color legend to show places of birth and marriage. Remember to include yourself. **Hint:** A good source for this information will be older relatives, religious books, family picture albums, family journals, or family cemetery plots.
6. Give a brief description of the climate in the place(s) of ancestral origin and compare this information to the climate where you now live. How are they different? How are they alike? Can you make any statements about geographic locations that make these environments similar or different?
7. Give a brief description of how your ancestors made a living. Compare that way of life to the present. Does climate or physical environment play a role in these differences or similarities?
8. Make the same comparisons stated in question seven for the following: food, clothing, shelter, holidays, types of transportation, observed customs, and language.
9. Give a description of the factors that have lead to migration of your immediate ancestors to the place your family now lives. **Hint:** religious events, major historical events, political events, changes in technology, population changes, natural causes (weather), economic factors, or others.
10. Look for visual, written, or audio examples of contributions your ancestral heritage has made to American culture. List them or cut out magazine pictures showing these things. **Hint:** If it is a physical object, you may use it in your presentation. Places and things include: magazines, architecture, foods, fashions, literature, movies, art, furniture and others. Pictures should be displayed on poster board.
11. Use the dictionary to find at least ten words that are now part of the English language that can be traced to the language or country of your ancestry.

Bert Bonnecarrere, Cyndi Krueger, Jane Maler, and Jerry Wright

Dave Geyer
Penn High School

1. Title: Food for Thought

2. Grade Level/Course: Geography in high school but applicable to other social sciences too.

3. objectives:
   a. Students will be able to visualize the distribution of world population.
   b. Students will be able to see the pattern of the existing world food supply.
   c. Students will be able to correlate the relationship between world population and food supply.
   d. Students will become more aware through a fun activity of the world population crisis.
   e. Students will assume the characteristics of their respective region and be able to defend their position.
   f. Students will realize that existing in the world are various regions.
   g. Students will be able to discuss the ramifications of the relationship of population and food as a resource.

4. Brief description: The teacher will apportion a large candy bar in relation to regional population and the existing food supply.

5. a. Necessary materials:
   The teacher will need a giant candy bar, a room of students, and the following table of world population, food statistics, and a typical class breakdown. (If the teacher does not have a class of 30 students, then he/she will need to make adjustments in the table.)

Table

Population percentages		# of students (30)	Food Distribution (% of Candy Bar)
Africa	10%	3	3%
Asia	59%	17.7	4%
Europe	17%	5.1	23%
Latin America	8%	2.4	8%
North America	6%	1.8	62%

Note: The teacher will have to do the necessary mathmatical rounding of the percentages. Also, if your candy is messy, you might want to provide each student with a napkin.

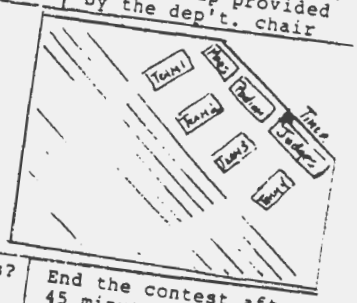
b. Chronology:
   1. Divide the class into regions according to the table's proportions and separate them into different areas in the room.
   2. Tell them the region which they represent. Explain that you are going to distribute their share of the world's food according to current conditions.
   3. Distribute the apportioned candy and instruct them not to eat it!
   4. Explain the current relationship between world population and the existing food supply.
   5. Tell the students to then use the food as they wish. (You will see some sharing and some greedily hoarding.)
   6. After the food has been consumed or shared, then discuss the participants' reactions and emotions to the simulation experience.

c. Organization of the class:
   previously stated

6. Sources:
   1986 World Population Data Sheet by the Population Reference Bureau
   Indiana in the World Teaching Activities Packet on Global Education

7. Evaluation of activity if previously used:
   This simulation works very well in the classroom. Of course, any time that you afford students the opportunity to eat candy in class, your success is virtually assured. You will find that many students will take this activity quite seriously and begin thinking about world population in relation to the existing food supply. It has been an invaluable tool as a discussion opener on the responsibility of the United States to share its resources with the less fortunate.

HOW TO SET UP A GEOGRAPHY BOWL

Questions to Consider:	The SHJHS Answer:
1. When will the Bowl be held?	At Open House, in Mar
2. Who is responsible for gathering the questions?	The department chair
3. Who is responsible for creating questions for the preliminaries (choosing of teams)?	All participating tch:
4. What will the categories of questions be?	Vocabulary, Capitals, Countries & landforms Historical events, & Waterbodies
5. How do you set up the preliminaries? A. Written tests B. Geography Bee	Both
6. How many teams will there be?	Four--one for every 3 sections taught
7. How are the teams chosen? A. Sign up sheets B. Volunteer teams of friends C. Teacher choice	Teacher choice
8. Who names the teams, and who chooses the team captains? A. The team members B. The teacher	The team members
9. How will the questions be asked and answered? A. A different question for each team with oral answers by the team captains B. The same question for each team, with written answers by team captains (This necessitates a monitor at each table)	Same question, written answer
10. How much time for teams to decide on an answer?	15 seconds
11. What is the time limit for the Geography Bowl?	45 minutes
12. How many "helpers" will be needed?	The principal, the questioner, 2 judges a timekeeper, a scorekeeper, and one monitor per team
13. What will the point system be?	100 points per answer
14. What publicity needs to be considered, and who will be responsible for each?	A letter to parents, the PTA Newsletter, PA announcements, posters, the communit newspaper, TV statior the local cable TV station, the Irving I Newsletter, etc.
15. Where will the Bowl be held, and what needs to be physically set up?	In the cafeteria-- a podium, tables, the microphone, chairs maps, an overhead projector
16. Who will set it up?	the maintenance crew, using a map provided by the dep't. chair
17. How will it be arranged physically?	
18. How do you handle the announcement of winners?	End the contest after 45 minutes, then dismiss all parents and team members to visit with teachers while scores are tallied. Tell them to reconvene 15 minutes before Open House is scheduled to end. The principal makes the announcement of the winning team, and awards the certificate and trophies.
19. What happens in the event of a tie?	The team captains of the tied teams are called to the principal's office, and the answer individually, until one captain misses.

20. Whose responsibility is it to...
    A. Get the layout map to the maintenance crew,
    B. Make sure the questions are there,
    C. Make sure there are paper and pencils at each table,
    D. Make a banner, color it, laminate it, and hang it over the podium,
    E. Bring a stopwatch for the timekeeper,
    F. Provide tally sheets for the scorekeeper,
    G. Provide questions and answers for the judges,
    H. Turn the overhead projector off & on,
    I. Make name tags for team members,
    J. Make team name placards for the end of the tables,
    K. Write introductory and closing speeches for the principal and for the questioner,
    L. Hold a meeting to explain the set up and th members

Incorporate the five themes of geography within the following high school physics or science unit on global climate.

Outline for a unit on Global Climate Change developed at UCSF Science Ed. Partnership Workshop

Day 1 The general subject is introduced by viewing "Hot Enough For You?" - a video in the Nova Series of television productions. A teacher advice sheet supplies background information, discussion questions and suggestions of places to fast forward the video to keep the lesson within the class period.

Day 2 - 3 Laboratory activity on detecting carbon dioxide using bromthymol blue solution. (a modification of "The Greenhouse Effect in a Vial" The Science Teacher, May 1989.

Day 4 - 5 Laboratory activity using the carbon dioxide and limewater reaction to (a) test for carbon dioxide in ambient air and to (b) model the production of calcium carbonate in the ocean. The follow-up includes discussion of the laboratory work and student conclusions.
(The activity is described on page 5 of this issue.)

Day 6 - 7 Laboratory activity dealing with plants and carbon dioxide. Cuttings of elodea are placed in a slightly acidic bromthymol blue solution (olive green color) which contains some carbon dioxide. Some tubes are exposed to light, some kept in darkness and some are wrapped in transparent colored filters. The results are discussed and the ability of green plants to absorb carbon dioxide is connected to the global climate. (Developed at the Science Education Center, LLNL, Livermore CA. by teachers William Pence and Stephen Armstrong and is available free of charge. See note page 11)

Day 8 - 10 Students construct and experiment with a device to demonstrate resonance. (An activity developed at the Exploratorium, San Francisco.) Physical models of molecules of carbon dioxide, methane and nitrogen are constructed. Experiment leads the students to conclude that objects absorb energy at frequencies that match their natural frequencies of vibration. The selective absorption of infrared radiation by greenhouse gases is discussed.
(These activities are described on pages 6 through 9 of this issue.)

Day 11 - 12 Using charts and diagrams the teacher leads a discussion on the complete carbon cycle, both short term and long term, with emphasis on the connections to Earth systems and climate. The influence of climate on human activities and the possible consequences of global warming are discussed.

Day 13 Classroom discussion develops examples of those human actions that produce increased emissions of greenhouse gases. A chart on "Actions that reduce the threat of global warming" is produced. The chart also develops the reasons why such actions would be beneficial in ways having nothing to do with global warming. (A sample of this chart is on page 10 this issue.)

Day 14 As a review of the information, the class plays a version of the popular TV game show "Jeopardy" with categories and questions related to the topic of global warming. (Under development)

Day 15 Evaluation of the students' understanding of the subject. Under development are questions that test for understanding of important concepts and the ability to think and communicate coherently about the problems and the possible actions that may be taken to ameliorate the situation.

The science educators responsible for the development of this unit are:
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Emil Fogarino, Washington High School, " "
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Erainya Neirro, Presidio Hill Middle School, " "
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Richard Golden, Climate Protection Institute, Oakland

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ACTIONS THAT REDUCE THE THREAT OF GLOBAL CLIMATE CHANGE

Greenhouse Gas	Actions that could be taken	Benefits to individuals, society, and the Earth, other than reducing the threat of climate change
Carbon dioxide Sources: burning fossil fuels deforestation Contributes about 50% to global warming due to the increased greenhouse effect	Reduce fossil fuel dependent transportation Use mass transit — Avoid gas guzzlers Use carpools — Use other fuels Use bikes, walk more — solar, wind, biomass Reduce fossil fuel use in the home and in industry Improve insulation — Use energy efficient equipment Practice energy conservation; reduce thermostat settings, turn lights off Develop cogeneration — Promote other energy sources Recycle raw materials Reduce deforestation; plant trees Reduce use of paper and paper products	Reduce land destruction due to strip mining, oil drilling and spills Reduce the amount of forest destruction from acid rain Improve the quality of the air, less air pollution Improve the quality of life, less traffic, less stress Saving gasoline saves money, and exercise is healthful Protect the oceans, reduced oil drilling, less oil spills Achieve energy independence, improved economics Preserve fossil fuels for use by future generations Preserve valuable raw materials Save energy involved in transporting and processing of raw materials for manufacturing Reduce waste and need for incineration or landfill space Save forests and preserve natural beauty Preserve the habitats of wild animals and plants Reduce soil erosion, prevent flooding
Methane Sources: cattle, fossil fuels, landfills, rice paddies, termites Contributes about 16% to global warming	Eat less meat (lower on the food chain) Reduce wastes and need for landfills by recycling Reduce the deforestation that breeds termites Prevent methane leakage from stoves and units that use natural gas	Healthier diet Eating less meat provides more food for more people Recycling preserves materials, forests, saves money and energy Saves habitats for endangered species, preserves watersheds Saves money
Chlorofluorocarbons Sources: refrigerants, solvents, foamed plastics mfg. Contributes about 20%	Develop and use environmentally save substitutes, Capture and recycle CFC's from old refrigerators and air conditioners, Support international protocols on limiting their use	Reduce the destruction of the ozone layer in the upper atmosphere
Nitrous oxide - About 6% Sources: fertilizer use, burning of fossil fuels and biomass	Reduce use of fertilizer by using organic growing techniques, Act to reduce fossil fuel uses as listed above	Preserve soil for immediate and long-term use Reduce runoff water pollution Benefits of reducing fossil fuel use as listed above
Ozone (in the lower atmos.) Sources: car exhaust, factory emissions — About 8%	Reduce car emissions by using cars less and by maintaining engines in good working order	Reduce respiratory deaths and distress of elderly in cities Save money, Reduce air pollution and bad effects on plants Numerous benefits of reducing gasoline consumption

Dr. Timothy Brothers
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Geography 307

Exercise 3: Historical vegetation change

This exercise makes use of the U.S. General Land Office survey of Indiana, available for public inspection in the State Archives (Room 117 of the Indiana State Library, at Senate and Ohio Streets). During the 19th century, government surveyors established the coordinates of the rectangular township-and-range survey system throughout Indiana. In this system, the landscape is divided into a grid of 6-mile-square townships that are numbered by distance north or south of an E-W baseline in the southern part of the state and distance east or west of a meridian running N-S roughly through the center of the state. Each township is divided into 36 1-mile-square sections, numbered as follows:

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

As they surveyed township boundaries, surveyors described the vegetation encountered and identified witness trees at each section corner (usually two trees per corner). This exercise will make use of the surveyors' descriptions to compare the survey-era vegetation of Marion County with that existing today.

I. Reconstruction of original vegetation

Locate township 17N range 2E on the USGS 1:24,000 topographic map series. This township is at the north end of Eagle Creek Reservoir in the northwest corner of Marion County and is contained on the Zionsville, Carmel, Indianapolis West, and Clermont topographic sheets, available from the Geography Department or the main library. At the state archives (hours 8:00-4:30 M-F), photocopy the plat map and witness tree description for township 17N range 2E from the surveyors' plat books. Also photocopy the surveyors' field descriptions of the survey line that bisects the township E-W. (86th Street presently follows this line.) Please treat the archival materials with care.

1. From the plat map, make a rough base map of the township, showing physical features and section lines. On this base, map the witness trees at each section corner (including both interior and exterior corners) and at any supplementary corners along rivers. Use a different symbol for each tree species, but put all trees on the same map.

2. Describe the vegetation types the surveyor found in the township. Was it entirely forested, or was nonforest vegetation present? If so, locate this vegetation on your map.

3. What tree species were dominant in your township, as estimated from the witness trees? What forest associations were present? If you can distinguish more than one, draw rough boundaries between associations on your map.

4. Was the vegetation of the township still natural at the time of the survey, or is there evidence of human disturbance?

II. Comparison with present vegetation

1. Describe the vegetation along the E-W center line of your township, as noted by the surveyor.

2. As nearly as possible, retrace this route by car. (The Zionsville and Carmel topographic sheets will assist you.) Describe the present landscape encountered, with particular reference to how the vegetation differs from that the surveyor saw. Attempt to relocate the section corners along this route (there should be 7 corners). Are any of the witness trees still present? What do you find at the corners now?

Discuss the ways in which people have modified the original vegetation.

Dr. Timothy Brothers
IUPUI, Dept. of Geography

Geography 307

Exercise Three: Human Modification of Plant Distributions

This exercise examines human-caused changes in the original plant cover of southwestern Parke County. Answers to the exercise will be based mainly on a day-long field trip, but you may also want to consult the materials available for previous exercises. USGS topographic maps of the area and the Parke County soil survey will be particularly helpful for an overall survey of changes in vegetation structure. As in previous exercises, your grade will be based on the accuracy, completeness, and clarity of your presentation.

Questions

1. What changes have humans created in the physical and biological environment of the study area? Consider here such factors as light, moisture, disturbance, and competition, as discussed in lectures and readings. Have humans created any new kinds of habitats, not present in the original landscape?

2. a) What physiognomic changes have taken place in the original vegetation cover? Consider not only changes in extent of the general physiognomic types originally present but also structural changes within remnants of the original types (e.g., the relative importance of tree, shrub, and herb layers in forest communities).

   b) In what kinds of sites have the original communities survived with the least modification? Locate on your base map any sites where you think the vegetation still appears in its original form.

   c) Describe any new human-created physiognomic types you see. How do these differ physiognomically from the original communities?

3. a) Clearly humans have caused great changes in the local distributions of the species native to this area. Can you identify any species or groups of species that have been greatly reduced in range or even become locally extinct? Can you spot any relict individuals, left behind in the landscape while the surrounding community has been removed? If so, locate these on your map and identify them if possible. (Where our route passes by the original section and quarter-section corners, you might especially look for the original witness trees; they should be graybeards by now.)

   b) Can you identify any native species or species groups whose ranges have expanded as a result of human impact? If so, mark some representative locations on your base map.

   c) If you have managed to find examples of both range expansion and range contraction in a) and b) above, speculate on the differences between these two groups that have contributed to their different fates.

4. a) What prominent alien (nonnative) species are now present in the landscape? Which of these appear to be confined to planted situations, and which have become naturalized (reproducing outside cultivation)?

   b) In what kinds of sites are naturalized aliens most abundant?

   c) What are the ecological characteristics of these naturalized species? Can you make generalizations, or do they seem to have a wide variety of attributes?

5. Finally, discuss what you perceive to be the general effects of humans in this area on the structure, richness, and stability of the plant cover. Are present communities nearer or farther from an equilibrium state than they were before white settlement?

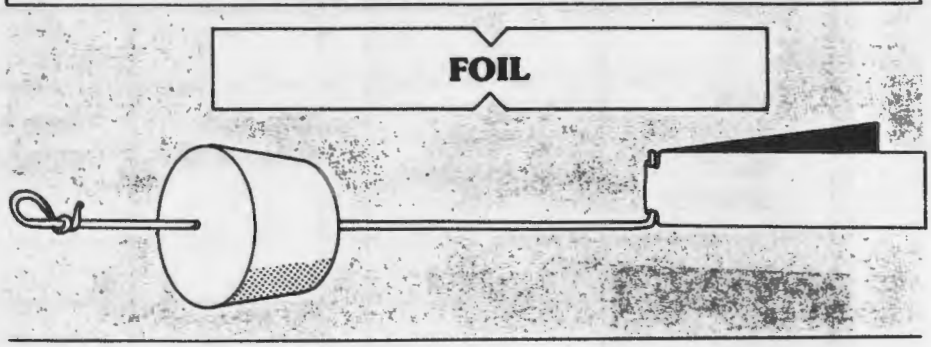
When studying physics or science, incorporate at least one aspect of a geographical nature. For example, when doing the activity on this page relate the closed system electricity effects to a global system and associated electricity effects within the atmosphere.

American Nuclear Society

Classroom project #27—A make-and-use electroscope

Using an electroscope you can study the effects of static electricity and detect radiation by showing that it will discharge the electroscope. Dry conditions are important in constructing and operating an electroscope. If possible, place the container in a warm oven before assembling, and then assemble it while warm. That will help ensure the low humidity needed inside the container. *Materials:*

- *thin* gum-wrapper foil, 3 × ½-inch piece (Freedent is about the only gum that has wrappers from which the foil can be peeled off; some candy foils can be separated.)
- glass jar or bottle with narrow mouth, and base at least 3 inches in diameter, such as a vinegar or syrup bottle
- cork to fit the bottle (hardware stores have various sizes)
- No. 14 copper wire (the length of the bottle) or straightened large paper clip
- silicon (household) cement glue
- ice pick or other tool to punch a hole through the cork
- rod or other object made of lucite (hard plastic) or glass, at least ¼-inch in diameter and 6 inches long
- comb made of hard rubber or plastic
- wool, fur, or silk (2-inch square piece)
- balloon
- stopwatch or watch with second hand
- radiation sources, such as thorium camping lantern mantles from hardware or sports stores (alpha emitter), piece of Fiestaware from flea market (beta emitter), radiation source discs from science supply house (alpha, beta, and gamma emitters)
- miscellaneous items such as a paper clip, penny, eraser



Do you know . . .?

Q. What is the difference between an atomic reaction and a nuclear reaction?

A. In an atomic reaction, the atoms are rearranged but the element is unchanged. In a nuclear reaction, an element is changed into a different element or elements.—*From* The Spark, *newsletter of Duke Power Company, Spring 1985.*

* * *

If you have a question about the nuclear sciences that you'd like to have answered, send it to the *re-actions* editor, c/o American Nuclear Society, 555 N. Kensington Ave., La Grange Park, IL 60525.

NUCLEAR SCIENCES

Procedure: Thoroughly wash the bottle. Remove all possible moisture by drying it in the oven (use the lowest setting so it will not crack or break, or use a hair dryer or heat register). You also might put some salt in the bottle and close it tightly for 10 minutes. The salt will absorb any water in the bottle. Cut and assemble the foil, wire, and cork as shown in the pictures below this box. Place the cork/wire/foil element in the bottle tightly, adjusting the wire so the foil leaves are equally distant from the sides, top, and bottom of the bottle. Use cement glue to seal the wire to the cork.

To use your electroscope, first, stroke the rod several times with the fur/wool/silk sample, or run your comb through your hair several times. Hold the rod or comb up to the metal wire at top of the electroscope. You also can rub a balloon with wool and touch it to the wire. The static electricity charge will be transferred directly to the electroscope. This is called charging. Can you predict what will happen and why? Try it. (Charging the electroscope with the rubbed balloon or rod will cause the foil leaves to push away from each other since like charges repel.) What happens if you now touch the wire with your finger while holding the rod or balloon to the wire? (Nothing happens.) What happens when you remove your finger and *then* remove the object? (The leaves should lose their charge and move back together.)

Now put one of the miscellaneous items or radiation sources into the bottle and close it tightly again. Repeat the experiment. (The leaves should come together more quickly when a radiation source is inside. Time them.) What do you think this demonstration has to do with the study of radiation? (It shows that rays from the source in the jar produce ions—electrically charged particles. Ions will be attracted to the metal inside the electroscope because opposite electrical charges attract, and they cancel each other out. Ionization caused by radiations will cancel out the electroscope's charge and allow the foil leaves to come together again. By measuring the time it takes the electroscope to lose its charge and the leaves to come together, possible differences in the discharging rate from different radioactive sources can be shown and used to identify the type of radiation.) You also may want to discuss conduction and induction.

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Name _____ Research skills

Due Date _____

State Scavenger Hunt

Number 1 to 25 on the back of this sheet. Use resource books and encyclopedias to find as much of the following information about your state as you can. Write your answers on the back of this sheet. Color the boxes you complete.

Largest county (area) 1.	Smallest county (area) 2.	Highest point above sea level 3.	First governor of the state 4.	Longest highway 5.
Most popular tourist attraction 6.	Largest university (enrollment) 7.	Origin of state name 8.	Date of statehood 9.	Native American tribe that lived or lives in this state 10.
Current population 11.	Number-one industry 12.	Number-one crop 13.	Native country of first explorer(s) 14.	Largest body of water 15.
Governor's full name 16.	One of your state's U.S. senators 17.	State capital 18.	A famous citizen 19.	Largest city (population) 20.
First college in state 21.	State nickname 22.	State motto 23.	Number of counties 24.	Title of state song 25.

Name _____ Research skills, compare and contrast

★★★★★How Does My State "Stack Up"?★★★★★

Write your state's name and the name of another state of your choice in the chart. Do some research to find out how the two states are alike and different in each area. Write your conclusions in the chart.

★	MY STATE _____	ANOTHER STATE _____
Area		
Location		
Climate		
Notable People		
Industry		
Agriculture		
Interesting Sites		
Unique Wildlife		

Name _____ Contract

My State, From *A* To *Z* (Almost!)

Color each box as you complete the activity.

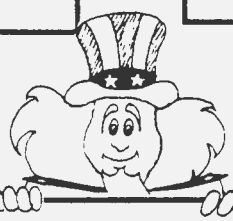
Write an ADVERTISEMENT for my state. Tape record it.

Research a BUSINESS in my state. How has it changed in the last 20 years?

For the state CAPITOL, design a plaque honoring a famous person from my state.

DRAW a picture of a famous moment in my state's history.

List the good things about EDUCATION in my state.



Create a FLAG for my county.

Draw a timeline of my state's HISTORY.

____ **activities =**

____ **activities =**

____ **activities =**

Design a postcard giving INFORMATION about a tourist attraction in my state.

Describe my JOB in this state 20 years from now.

Interview 15 people to find out what they LIKE most about living in my state.

Make a collage showing pictures of MANUFACTURED goods from my state.

Nominate a new state NICKNAME. Explain why I chose it.

Give at least five reasons why PEOPLE are my state's #1 resource.

Compile a list of 10 QUESTIONS I would like to ask the governor.

Illustrate a poster showing my state's natural RESOURCES.

Draw a STAMP that celebrates my wonderful state.

Describe what TRANSPORTATION in my state will be like in the next century.

Write a poem or song telling why my state is UNIQUE.

Give at least 10 reasons why my state is VALUABLE to the United States.

Bonus Box: Make a folder in which to store your work. Decorate the cover.

In a letter, nominate an animal from my state to be in a special exhibit at the National ZOO in Washington, DC.

NAME THAT TOWN!

Find and circle the 50 real, but unusual place names hiding in the puzzle below. Names go forward, backward, up, down, and diagonally.

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

Bad Axe (MI)
Bangs (TX)
Blanket (TX)
Blue Eye (MO)
Bobo (MS)
Bock (MN)
Bowlegs (OK)
Bumblebee (AZ)
Burnt Corn (AL)
Buttonwillow (CA)
Concrete (WA)
Coward (SC)
Cut and Shoot (TX)
Cuzzart (WV)
Diagonal (IA)
Eek (AK)
Elmo (MT)
Funk (NB)
Gas (KS)
Jumbo (OK)
Likely (CA)
Luck (WI)
Magazine (AR)
Okay (OK)
Ong (NB)
Ord (NB)
Overall (VA)
Pillow (PA)
Plum (TX)
Raisin (TX)
Relief (KY)
Romeo (MI)
Saddlestring (WY)
Smackover (AR)
Sopchoppy (FL)
Spot (NC)
Spray (NC)
Stem (NC)
Ten Sleep (WY)
Thistle (UT)
Thumb (WY)
Tickfaw (LA)
Tomato (AR)
Tumtum (WA)
Turkey (TX)
Twisp (WA)
Twitty (TX)
Weed (NM)
Why (AZ)
Woonsocket (RI)

MORE FUN WITH PLACE NAMES

JUST FOR FUN

Try one of these class projects.

1. Make a list of some of the most unusual or comical place names you can find. Divide the list among class members Write a letter to the mayor or postmaster of each town and ask for information on the origin of the town's name. See how many letters and postmarks you can collect by the end of the year. Make a giant United States map for the classroom wall or bulletin board on which to display your findings.

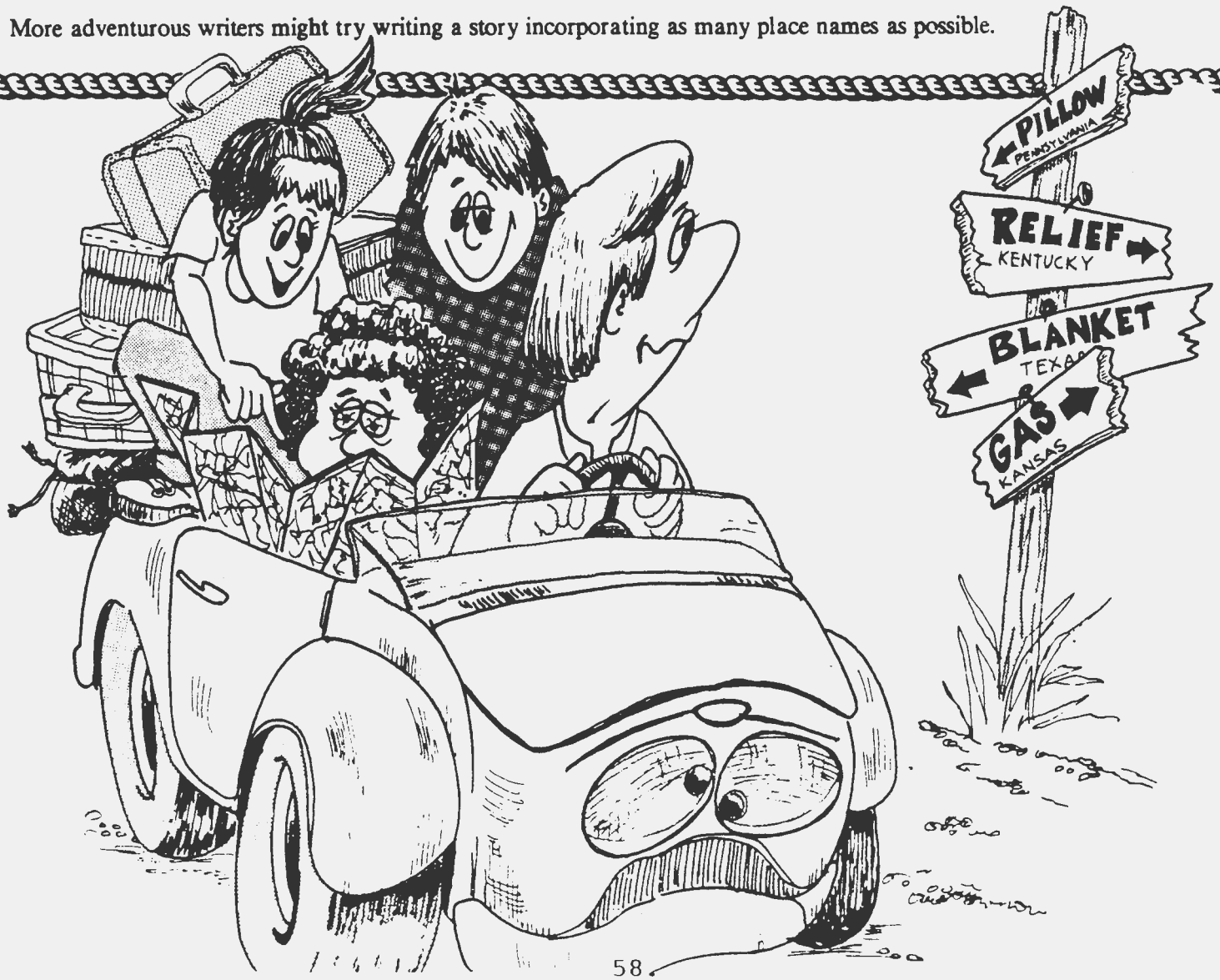
2. Do some research at the local library, courthouse, or historical society to find out how your town or city got its name. Write a report to share with the class or an article for your local or school newspaper.

3. Select an especially comical place name and write a fictional account of how the town's name was originally chosen. Illustrate your tall tale.

4. See how many place names you can fit into one sentence. Challenge class members to top these corny examples:

   - ELMO was RAISIN his BAD AXE and fell SMACKOVER into the BURNT CORN.
   - PUYALLUP a BLANKET in the SHADE, DEARY, and you're LIKELY to find FRIENDSHIP in this NICETOWN. OKAY?
   - The SEA BREEZE and SUNSHINE on the BEACH made KELLY ADMIRE THE ISLAND.
   - ZAP! The BUMBLEBEE stung HARVEY's FINGER in the BUGGY MEETINGHOUSE, but the SPRAY gave him RELIEF!

5. More adventurous writers might try writing a story incorporating as many place names as possible.



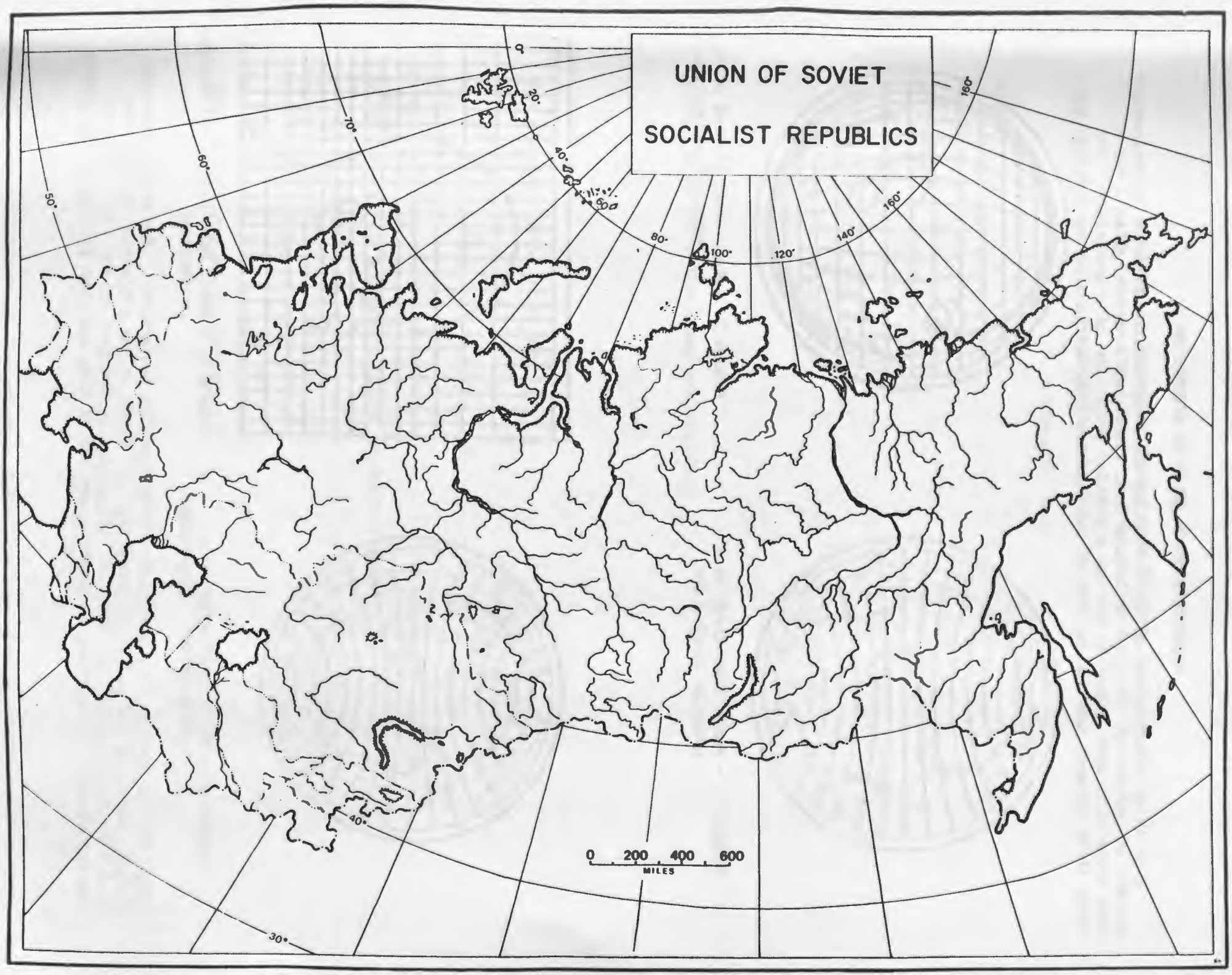
SCENIC AMERICA

by Helen Friesen

Where will you spend your vacation this summer? If you heard that someone visited the following places, would you know where they had been? See if you can match the site with the proper state.

_____	1. Carlsbad Caverns	A. Texas
_____	2. Bryce Canyon	B. Arkansas
_____	3. Yosemite National Park	C. Idaho
_____	4. Grand Canyon	D. New Mexico
_____	5. Crater Lake	E. Montana
_____	6. Craters of the Moon	F. New York
_____	7. Mount McKinley	G. Alaska
_____	8. Mount Saint Helens	H. Nevada
_____	9. Flint Hills	I. California
_____	10. Pikes Peak	J. Massachusetts
_____	11. The Ozarks	K. Hawaii
_____	12. Mount Rushmore	L. South Dakota
_____	13. Kilauea Volcano	M. Oregon
_____	14. Sand dunes	N. Pennsylvania
_____	15. Yellowstone National Park	O. Kansas
_____	16. Niagara Falls	P. Minnesota
_____	17. Headwaters of the Mississippi River	Q. Utah
_____	18. Big Bend National Park	R. Arizona
_____	19. Amish of Lancaster County	S. Colorado
_____	20. Plymouth Rock	T. Washington
_____	21. Custer Battlefield	U. Indiana
_____	22. Hoover Dam	V. Wyoming

PHYSIOGRAPHIC DIAGRAM OF INDIANA


UNION OF SOVIET
SOCIALIST REPUBLICS
0
20°
40°
50°
60°
70°
80°
100°
120°
140°
160°
180°
30°
0 200 400 600
MILES

ILLUSTRATIONS OF RELATIVE DISTORTION

A striking illustration of the distortion and exaggerations inherent in various systems of projection is given in figures 1-4. In figure 1 we have shown a man's head drawn with some degree of care on a globular projection of a hemisphere. The other three figures have the outline of the head plotted, maintaining the latitude and

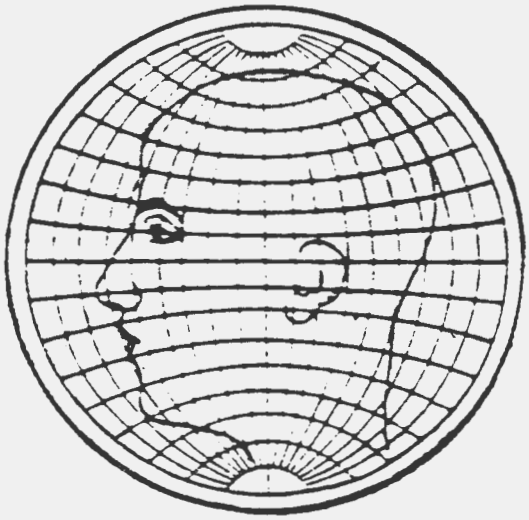


Figure 1. - Man's head drawn on a globular projection.

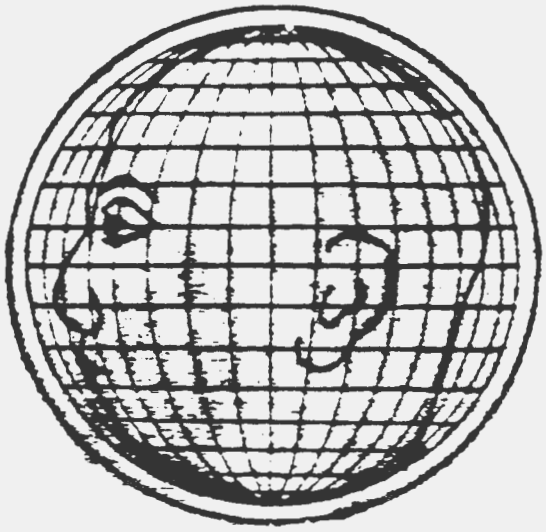


Figure 2. - Man's head plotted on an orthographic projection

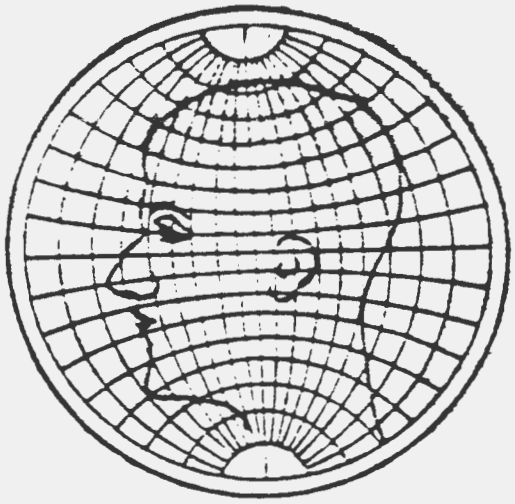


Figure 3. - Man's head drawn on a stereographic projection.

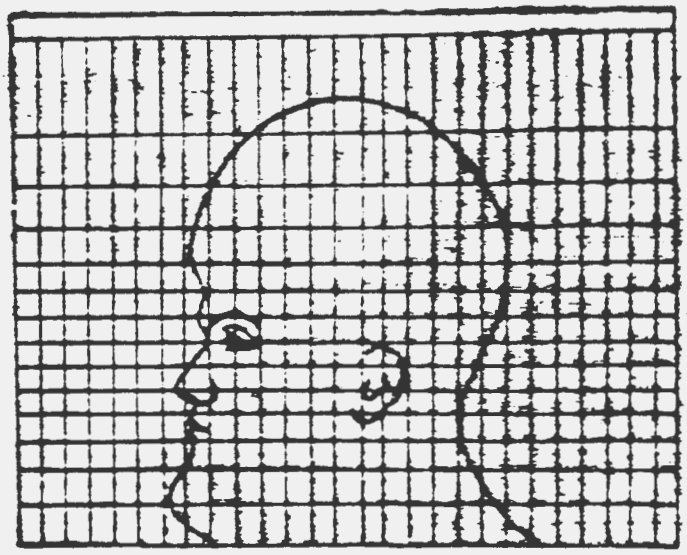


Figure 4. - Man's head plotted on Mercator projection.

longitude the same as they are found in the globular projection. The distortions and exaggerations are due solely to those that are found in the projection in question. This does not mean that the globular projection is the best of the four, because the symmetrical figure might be drawn on any one of them and then plotted on the others.

Return to: GENI Alliance, IUPUI Dept. of Geography,
425 University Blvd., Indianapolis, IN 46202

GEOGRAPHY AWARENESS WEEK

RESPONSE FORM

Name:

School:

Address:

Telephone No.:

What activities did you plan?

Which ones were the most successful?

Why do you think that was?

What would you add and expand on next year?

What would you do differently?

-- over --

With No. 5 being the most positive, how would you rank the week on these dimensions?

Your time involvements:	5	4	3	2	1	N/A
The active participation of:						
--the students	5	4	3	2	1	N/A
--other teachers	5	4	3	2	1	N/A
--your local community	5	4	3	2	1	N/A
--local media	5	4	3	2	1	N/A
GENI Alliance interaction:						
--instructions	5	4	3	2	1	
--resources made available	5	4	3	2	1	
--help from GENI office	5	4	3	2	1	

How could the GENI office have been a bigger help to you?

Further suggestions and/or comments:

New, improved Germany to rise from ashes of war and division

By PATRICK MOSER
UNITED PRESS INTERNATIONAL

Bonn, West Germany — The united Germany that will arise Wednesday will be a far cry from the nation that emerged from World War II humiliated, shattered and despised.

THE REUNIFIED GERMANY

NAME

Federal Republic of Germany.

POPULATION

61 million in West Germany plus 16.6 million in East Germany, for a tot of 77.6 million people.

SIZE

West Germany's 95,975 square miles plus East Germany's 41,768 squa miles. Total: 137,743 square miles, or more than half the size of Texas.

NATIONAL FLAG

The West German flag, with broad horizontal black, red, and gold stripe with no emblem.

NATIONAL ANTHEM

West Germany's current national hymn, which is part of a poem call *Deutschlandlied*, or *German Song*. It uses a melody written by Franz Jo Haydn in 1797. Its opening words are "Unity, and justice and freedom . . .

CURRENCY

The two Germanys joined their economies on July 1. Since then W Germany's deutsche mark has been the official currency across Germany will be the case after unity.

STATES

Five East German states added to West Germany's 11.

CAPITAL

Berlin becomes the capital of all Germany on unity day. Bonn will the seat of government, with an all-German Parliament to decide whet government will be moved to Berlin.

GOVERNMENT

Helmut Kohl, West Germany's chancellor, becomes leader of all on Wednesday. Pan-German elections scheduled for Dec. 2 will choo government and Parliament. Kohl is being challenged by Social Oskar Lafontaine in the Dec. 2 elections.

ASSOCIATED PRESS

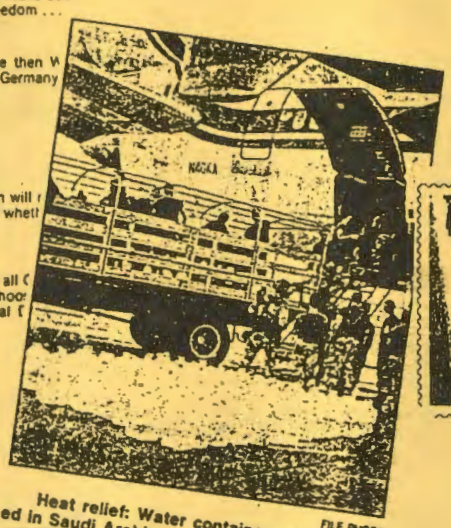
Fulfilling de Klerk's vision for a new South Africa

There were no parades for South African President F.W. de Klerk last week as there were for Nelson Mandela during his visit to the United States. De Klerk's *Nightline* interview with Ted Koppel was in a studio with no audience, unlike Mandela's, which was set in a New York church with hundreds of screaming supporters. There were no doting press and public for de Klerk and no sidewalk vendors hawking T-shirts bearing his picture.

STAMPS IN THE NEWS

By ROBERT N. BELL

The U.S. Postal Service will join 23 other postal administrations who are members of the Postal Union of the Americas and Spain in the issue of two stamps Oct. 12.

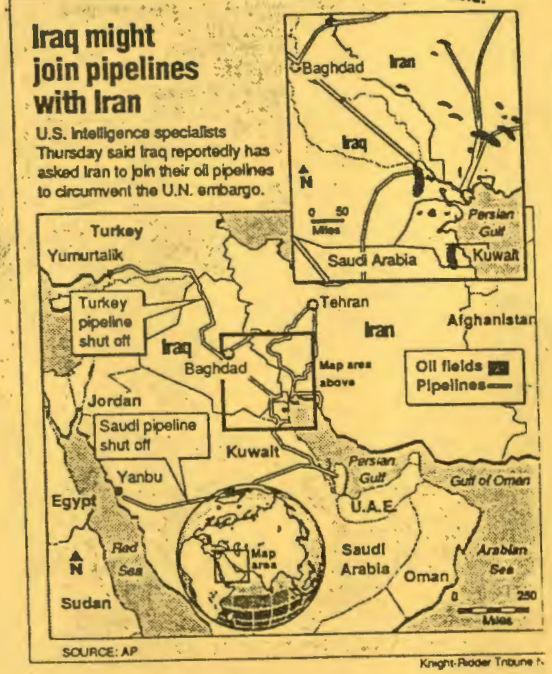


Heat relief: Water containers are unloaded in Saudi Arabia.

FILE PHOTO

Iraq might join pipelines with Iran

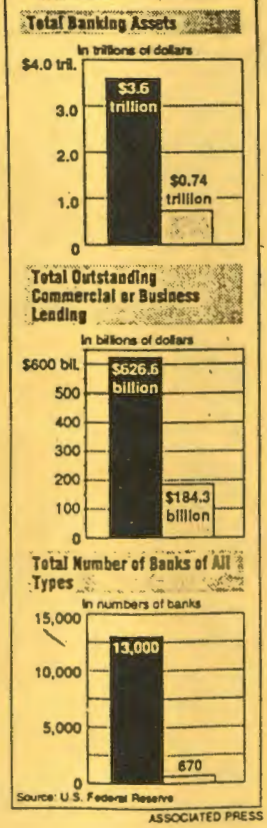
U.S. intelligence specialists Thursday said Iraq reportedly has asked Iran to join their oil pipelines to circumvent the U.N. embargo.



SOURCE: AP

Knight-Ridder Tribune

Foreign banks in the U.S. - Dec. 1989



Source: U.S. Federal Reserve

ASSOCIATED PRESS

AROUND THE WORLD

(Saturday through 1 p.m.)

		Le/Hi	Norma
CANADA			
Calgary	Fair	45/ 59	36/59
Edmonton	Fair	43/ 61	32/57
Halifax	Fog	52/ 68	50/62
Montreal	Rain	54/ 72	45/63
Ottawa	Rain	54/ 73	43/63
Quebec	NA	54/ 64	41/59
Regina	PtCldy	27/ 52	36/61
Toronto	Haze	57/ 75	45/64
Vancouver	Fair	59/ 68	46/61
MEXICO			
Acapulco	Fair	77/ 91	75/88
Guadalajara	Fair	64/ 84	59/79
LaPaz	Fair	75/100	72/91
Mexico City	Fair	54/ 82	52/72
Merida	Fair	68/ 93	73/90
CENTRAL AND SOUTH AMERICA			
Bogota	PtCldy	NA/ 64	48/66
Buenos Aires	Smoke	46/ 70	48/66
Caracas	Tstorms	NA/ 95	77/88
Havana	PtCldy	73/ 90	72/90
Kingston	PtCldy	79/ 93	77/88
Lima	PtCldy	59/ 64	57/63
Managua	PtCldy	NA/NA	73/9[illegible]
Nassau	PtCldy	75/ 88	75/86
Quito	PtCldy	46/ 70	45/7[illegible]
Rio de Janeiro	PtCldy	63/ 73	64/7[illegible]
Santiago	Sunny	37/ 73	43/6[illegible]
Sao Paulo	Haze	55/ 77	55/6[illegible]
PACIFIC			
Guam	NA	72/ 84	75/8[illegible]
Manila	Haze	77/ 90	75/8[illegible]
Melbourne	PtCldy	43/ 61	45/6[illegible]
Perth	Fair	63/ 84	52/5[illegible]
Sydney	Rain	57/ 66	54/6[illegible]
ASIA			
Bangkok	PtCldy	75/ 90	77/9[illegible]
Beijing	Cloudy	57/ 81	52/7[illegible]
Bombay	PtCldy	75/ 82	75/8[illegible]
Ho Chi Minh	Rain	77/ 90	75/8[illegible]
Hong Kong	PtCldy	79/ 84	75/8[illegible]
New Delhi	Haze	77/NA	70/9[illegible]
Seoul	PtCldy	59/ 79	54/7[illegible]
Shanghai	Cloudy	72/ 82	64/7[illegible]
Singapore	NA	NA/ 86	75/8[illegible]
Taipei	NA	77/ 84	70/8[illegible]
Tokyo	Rain	70/ 81	61/7[illegible]
EUROPE			
Amsterdam	Rain	45/ 63	54/6[illegible]
Athens	Rain	64/ 82	63/8[illegible]
Berlin	PtCldy	46/ 57	46/6[illegible]
Brussels	Rain	43/NA	46/6[illegible]
Copenhagen	Fog	52/ 54	46/5[illegible]
Dublin	Rain	55/ 68	46/5[illegible]
Edinburgh	Haze	55/ 64	46/5[illegible]
Frankfurt	PtCldy	39/ 63	48/5[illegible]
Istanbul	NA	55/ 68	56/7[illegible]
Leningrad	Clear	41/ 46	4[illegible]
London	Rain	50/ 70	48/5[illegible]
Madrid	Rain	61/ 86	54/7[illegible]
Moscow	Rain	39/ 45	43/5[illegible]
Oslo	PtCldy	45/ 57	39/5[illegible]
Paris	Rain	43/ 66	50/6[illegible]
Rome	Clear	54/ 79	58/7[illegible]
Sarajevo	Clear	36/ 61	46/5[illegible]
Stockholm	Rain	46/ 52	43/5[illegible]
Vienna	Fair	39/ 81	48/5[illegible]
Warsaw	PtCldy	48/ 55	45/5[illegible]
Zurich	NA	41/ 63	48/[illegible]
AFRICA, MIDEAST			
Beirut	Fair	NA/NA	72/[illegible]
Cairo	Clear	NA/ 93	86/[illegible]
Jerusalem	Clear	61/ 82	61/[illegible]
Johannesburg	PtCldy	55/ 79	52/[illegible]
Mecca	Clear	73/NA	75/[illegible]
Nairobi	Fair	50/ 81	54/[illegible]

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Sunday, September 30, 1990

Special THANKS to all
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to the making of this
special lesson plan packet!!

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& Ginny Holzer.

Kathleen

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