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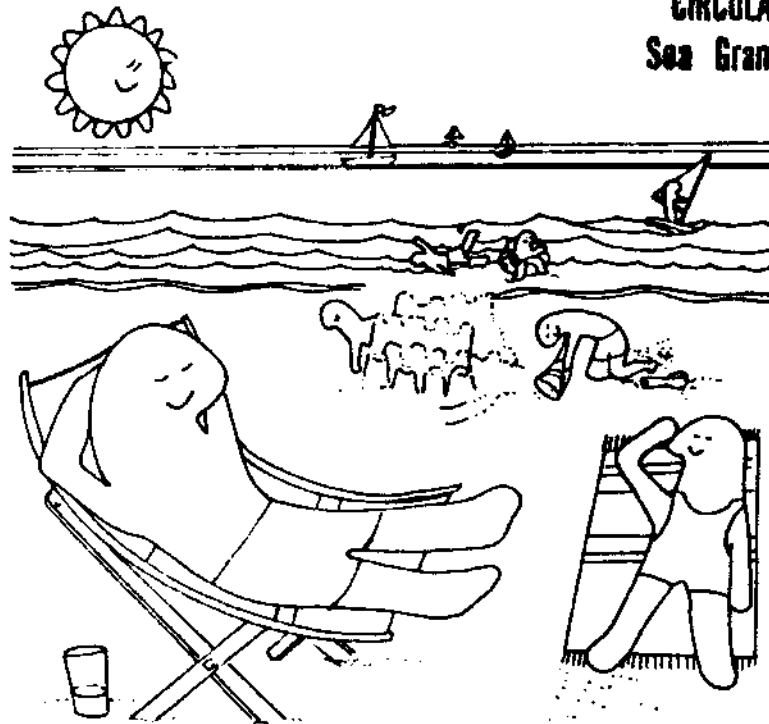
EP-24

A Great Lake Vacation

by
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The Ohio State University

Vacation Database by Christopher N. Fortner

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Teacher Guide

OEAGLS-Oceanic
Education
Activities
for
Great
Lakes
Schools

OEAGLS Investigation # 24

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TEACHER GUIDE

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TEACHER GUIDE

A GREAT LAKE VACATION

by Marilyn Lisowski and Rosanne W. Fortner
Ohio Sea Grant Education Program

OVERVIEW

This investigation is designed to introduce the variety of recreational activities available in the Lake Erie region. It includes a computerized database for Apple computers and two activities that help students understand the factors involved in making recreational decisions and carrying through on the results.

Activity A presents map reading activities that will familiarize students with the geography of the Lake Erie region and will provide information for completing Activity B. It is suitable for basic geography lessons, and it has an immediate application.

Activity B develops decision-making, analysis, and communication skills through a group activity using recreation request scenarios. Students are encouraged to be creative in presenting their own recreational needs or leisure preferences in a scenario format.

OBJECTIVES

When students have completed this investigation they should be able to

1. Describe the variety of recreational activities at Lake Erie.
2. Identify specific geographic regions that support distinct recreational opportunities.
3. Locate selected areas on different maps of the Lake Erie region.
4. Calculate distances on maps using the maps' scales.
5. Plan, agree upon and recommend a place for a certain type of recreation.
6. Tell what they would most like to do for recreation around the Great Lakes.

PREREQUISITE STUDENT BACKGROUND

Students should be able to perform simple measurement calculations. They should know how to boot a disk in an Apple computer and follow directions on the screen to make a program run.

MATERIALS

For each student: Ohio road map, ruler and colored pencils.

For each group: Set of recreation requests, computer database, Apple][computer with one disk drive.

If possible, collect in advance a wide variety of promotional literature from the areas listed on the Basin Data Sheets. A letter-writing activity could produce large amounts of information from Chambers of Commerce and Tourist Bureaus.

SUGGESTED APPROACH

The teacher should formally direct Activity A so that students will master the essential map reading skills. These skills will be needed to complete the remaining exercises.

In Activity B students should be organized into teams of 3 or 4 "recreational consultants." All the teams will then receive a set of scenarios (recreation requests) to review. After agreeing on the best recreation site using the Basin Data Sheets or the computer database, the decision should be recorded on the data sheet. After all the requests have been presented, a discussion among all the teams should allow for expressing different opinions.

The materials include extra scenarios as well. The maximum number of requests used can be determined by time available, interest level and/or need for additional experience with the activity. To provide information on a diversity of recreational areas, use at least the "A" and "B" sets.

As a concluding exercise, the students will then be able to create their own scenario or recreational preference and challenge other groups to identify a suitable location for them.

A GREAT LAKE VACATION

by
Marylin Lisowski and Rosanne W. Fortner

INTRODUCTION

What area of Ohio lures and hooks more than 1,000,000 licensed sport anglers every year? None other than the Great Lake Erie! These happy anglers have reeled in more than 3,000,000 walleye in one year in just the Western Basin, reports Ohio Sea Grant.

The promise of abundant walleye, perch and bass, however, isn't the only good catch of Lake Erie. Many types of recreational activities are possible. Lake Erie has the highest proportion of shoreline set aside for leisure time happenings of any of the Great Lakes. Different recreational possibilities exist from the Western Basin, where Lake Erie receives its water from the Detroit River, to the Eastern Basin, where the flow continues to Lake Ontario.

Over 1300 acres of beach, numerous parks, hunting and wildlife preserves, boating and cultural facilities help to make Lake Erie more than just the "Walleye Capital of the World." You will find out more about these great opportunities for fun, relaxation and entertainment in these activities.

ACTIVITY A: DO YOU MEASURE UP ON MAP SCALES?

Maps are like a lost and found department. Some people use maps when they are lost, but we will be using them to find interesting facts about the Lake Erie region. Maps can be used in locating special sites and attractions and in calculating the distances to these areas. Special aids can help in reading a map. The legend gives information quickly and easily. It is usually found in the right hand corner, beneath the map.

MATERIALS: Ruler, colored pencils, maps

PROCEDURE: Refer to the legend and use Map B to do the following.

1. Mark the international border in red.

Answers to items 1-7 are given on Teachers' Map B.

2. Underline the names of the 3 most populated cities in the Lake Erie region. The region extends from Lake St. Clair on the western end to the Niagara River on the eastern end.

3. The Western Basin of Lake Erie extends from the western edge of the Lake to the islands that lie between Point Pelee and Marblehead. Outline the Western Basin in green.

4. The Eastern Basin stretches from Erie, PA, to Niagara Falls. Outline the Eastern Basin in blue.

5. Between the Western and Eastern Basins lies the Central Basin. Outline it in brown.

6. Draw arrows to show the direction that water flows in Lake Erie.

7. Mark in purple the major highways that run north and south through Ohio.

Map B can help you to identify and locate the following places.

8. Write the names of these cities on your answer sheet.

- The coastal city in the Northeasternmost corner of Ohio.
- The Central Basin city that is on the Northern Shore of Lake Erie.
- The city that is the greatest distance from Lake Erie.
- The Canadian city on the border of the U.S.
- The lakeside city that has the most interstate highways crossing through it.

T8a. Ashtabula
b. Port Stanley
c. Cincinnati
d. Windsor
e. Cleveland

In this section refer to Maps A, B and C.

The official state highway map for Ohio has in its right corner a small but important symbol. It looks like this:



This symbol gives the **scale** of the map, a measure of how big the map parts are compared to the size of real distances in the state. Map scales can show you how far you must travel to get to a place. On this map the distances are given in miles, but you may wish to do some calculations in metric units later.

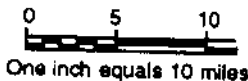
9. Maps A and B have different scales. Use the scales to estimate the distance from the State Capital, Columbus, to the city of Toledo on the shore of Lake Erie.

T9-10. Accept answers from 130 to 150 miles. The answers will probably not be the same on the two maps. B is more accurate because it has a scale with fewer miles to the inch (larger scale.)

10. Were your answers the same using the different scales of Maps A and B? If not, which do you think was more accurate? Why?

11. Map C is a section of the state's official highway map. Mark the most direct route from Columbus to Toledo. You may use as many route numbers as you need to reach your destination in as few miles as possible.

The scale of the road map is shown here:



12. Using the scale, estimate the number of miles on your route.

T12. Answers will vary with route chosen.

13. Is your answer more accurate than the one in Question 10? Why?

T13. Since the road map has an even larger scale, estimates made with it should be more accurate.

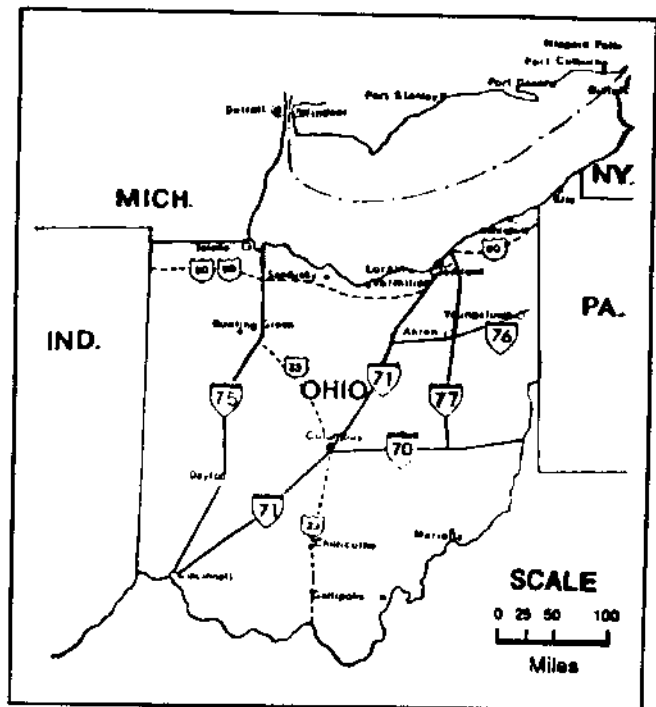
Look again at the road map section. Along the route you chose there are small numbers that show the

length, in miles, of a section of road. The section measured is the distance between major inter-sections. For example, the distance from Huron to Vermilion by Route 6 is about 12 miles.

14. On the route you marked to Toledo, find all the little distance numbers and add them together. Write the distance on your answer sheet.

T14. Answers will vary with route chosen.

Without actually driving along the route and getting the distance from your car's odometer, this is probably the most accurate method of estimating distances on the map.

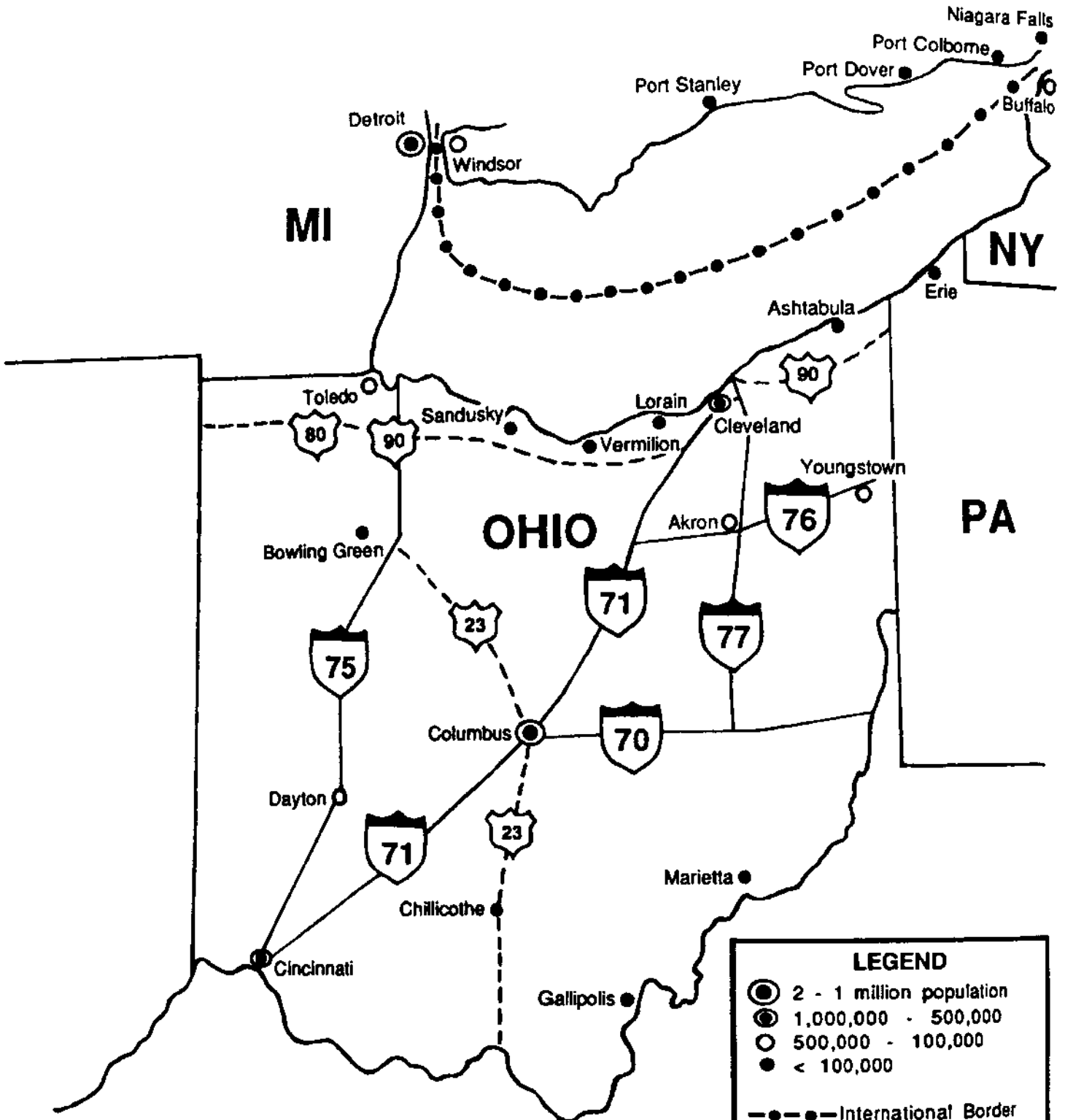


MAP A

Try these other activities to learn what you can do using the scale of a map. Use Map B.

- 15a. Calculate the length of Lake Erie's Ohio shoreline.
- b. What is the distance from where you live to the closest point on Lake Erie?
- c. If you traveled along the major highways, what would be the shortest route from Marietta to the Toledo area? List the highways used and the approximate mileage.

MAP B



LEGEND

- 2 - 1 million population
- 1,000,000 - 500,000
- 500,000 - 100,000
- < 100,000

---●--- International Border
———— Interstate Highway
- - - State Highways

SCALE

0 25 50 100

Miles

d. What is the distance from Sandusky to the nearest city in Pennsylvania?

NOTE: Depending on their familiarity with the metric system, the students can also make the measurements in metric units or do conversions.

- T15a. about 500 miles.
b. varies with the starting location
c. North on I-77, then west on I-80/90; about 250 miles
d. 175 miles

ACTIVITY B: WHAT LEISURE ACTIVITIES CAN BE DONE AT LAKE ERIE?

In this activity you will need to estimate the distances to some recreation areas near Lake Erie. Use what you have learned about map scales to calculate these distances.

This activity incorporates the map reading skills from Activity A and emphasizes analysis, planning and cooperative decision making skills.

There never seems to be enough time to do the things that you want to do. However, planning for recreation can free more time to spend in the leisure activity itself.

To help in planning leisure activities, teams of "recreational consultants" will be organized to discuss, advise and locate good sites for various outings. You will be part of a consulting team.

MATERIALS: Request cards (scenarios), Maps B and C, Basin data sheets, Table 1. Optional: Apple[and "Vacation" database.

PROCEDURE: Work in groups of 4. Your teacher will give you a recreational request, and with your team you will try to find the best site for the request that you received. Use the maps, the Basin data sheets or the computer database, and brochures from the areas to guide in your choice of recreation sites.

Recommended groupings of scenarios: The scenarios are arranged in three sets. Each set identifies a variety of recreational preferences. Begin by distributing one set of scenarios among the teams and discuss the resulting recreation decisions. If you have time, distribute the additional sets to identify other recreation areas. Another way to group scenarios is by subject matter. A science set and a social studies set are presented here. Use your imagination to develop new requests to meet your own instructional needs.

SET A:		
Capt. Thyme (ports)	S. Range (hunting)	Tagg & Assoc. (historical)
Pierre Dock (yacht)	Civic Society (camping)	B. Lockett (canals)
SET B:		
Craft & Co. (boating)	Mr/Mrs Tick (scenic)	Bleacher (sports)
Pep Club (picnic)	Ms. Meadows (hiking)	Kentucky (museum)
SET C:		
Chillicothe (active)	Mr/Mrs Tude (walking)	Bassman (fishing)
Robins (island)	Woody Trails (backpacking)	Frosty Runn (winter sports)
Science Set: S. Range, Robin's family, Woodrow Trails, Bassman family, Ms. Meadows, Mr/Mrs Tude, Kentucky Crusaders		
Social Studies Set: Capt. Thyme, Tagg & Associates, Bart Lockett, Kentucky Crusaders		

1. Read through the request and use the maps and data sheets or the computer program to locate the area or city that is best for what is requested. Use your map skills to check if the distances are within the desired limits.

To run the Vacation Database program, boot the disk and put the CAPS LOCK down if you are using a][e or][c computer. Follow the directions on the screen to choose any category you want to input. Select from that category, then choose another and select from it. Continue until you have chosen categories that match all you know about your "client" (the name on the scenario). Watch the number in the right hand corner of the screen to see how many areas have been identified with the characteristics you have selected at any given time. When the number reaches 1, or when you want to see some choices and the number is 2 or more, request to see the locations identified by the computer. Chances are good that you will have found a satisfactory recreation site this way.

Try specifying the desired characteristics in a different order. Do you get the same answers?

2. Agree on one site with your team members and prepare to share your reasons for the choice.

Some suggested answers are found on Page T6.

3. Record the information in Table 1 after each decision. As other teams report their results, record these in Table 1 as well.
4. Create your own recreation request. Challenge another team to find the right spot for you in the Lake Erie area.

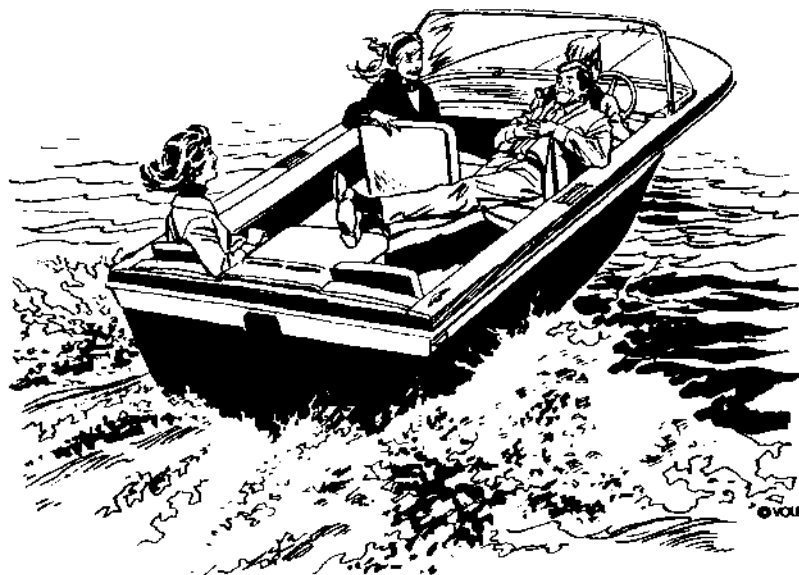


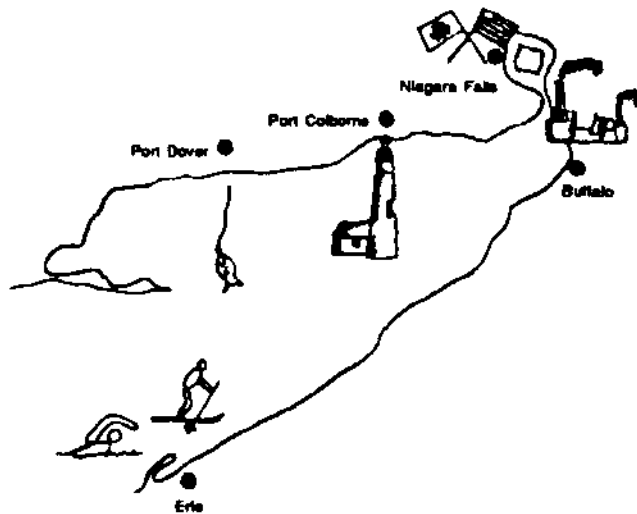
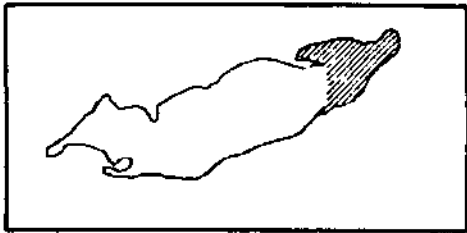
TABLE 1. Recreation Consultants' Reports

GROUP	RECREATION NEEDS	REGION	CITY/AREA SELECTED	REASONS

SUGGESTED LOCATIONS FOR RECREATION, WITH REASONS

SCENARIO	LOCATION	RATIONALE
Captain Mary Thyme	Toledo or Lorain or Detroit or Niagara	--Large port --Concentrations of vessels going through narrow shipping lanes
S. Range & Co.	Sandusky or Toledo	--Hunting nearby; wildlife refuges, preserves
Pierre Dock	Detroit or Vermilion	--Exclusive yacht clubs; cultural events and facilities --Same benefits as Detroit, but less industry and boat traffic
Civic Society	Vermilion or Port Dover	--Small town; boating available --Small town, fishing and camping, trail
Bassman Family	Ashtabula or Erie	--Fishing, near Youngstown
Craft & Company	Toledo, Sandusky, Islands, Catawba	--Near Bowling Green, many kinds of water activities
Tage & Associates	Buffalo area/Erie or Detroit	--Monuments, museums, historical buildings --Historical museums, Greenfield Village, Henry Ford Museum
Ms. Meadows	East of Cleveland	--Mentor Marsh, Headlands; nature programs; close to Cleveland
Chillicothe Team	Sandusky	--Cedar Point and other recreational attractions
Mr. & Mrs. Tude	Lake Erie Islands or Port Dover	--Wildlife; remoteness --Scenic shore; small town
Pep Club	Sandusky or Toledo	--Many recreational opportunities; near Fostoria
Bart Lockett	Buffalo or Port Colbourne	--Access to canals; Erie and Black Rock --Site of Welland Canal
Mrs. & Mr. Tick	Niagara Falls	--Scenic; many activities
Kentucky Crusaders	Cleveland or Detroit	--A central area that supports a complex of museums --Art, science and history museums
Frosty Runn	Erie	--Winter sporting activities
Robin's Family	Lake Erie Islands	--Ferry service from mainland to islands; island environment
Bleacher Family	Cleveland	--Professional sports, regattas, boat races, close to Akron
Woodrow Trails	Niagara Falls	--Beginning of Bruce Trail

EASTERN BASIN DATA SHEET



Niagara Falls

1. Thundering waterfalls with many viewing towers and scenic outposts.
2. Entertainment facilities, tourist attractions, historic sites and large park system with county camping facilities.
3. Niagara-on-the-Lake, a nearby village of century old buildings, cottages, specialty shops and restaurants.
4. Beginning of Bruce Trail, a 430-mile hiking trail of main routes and side trails along the Niagara Escarpment.
5. Niagara Falls is actually two cities, one in New York and one in Ontario.

Buffalo, New York

1. Very attractive port for commercial shipping.
2. Industrial city.
3. Historical sites and museums of science, military history, canal development, art and sculpture.
4. Access to Erie and Black Rock Canals.
5. Supports professional sports teams (football, hockey, minor league baseball).

Erie, Pennsylvania

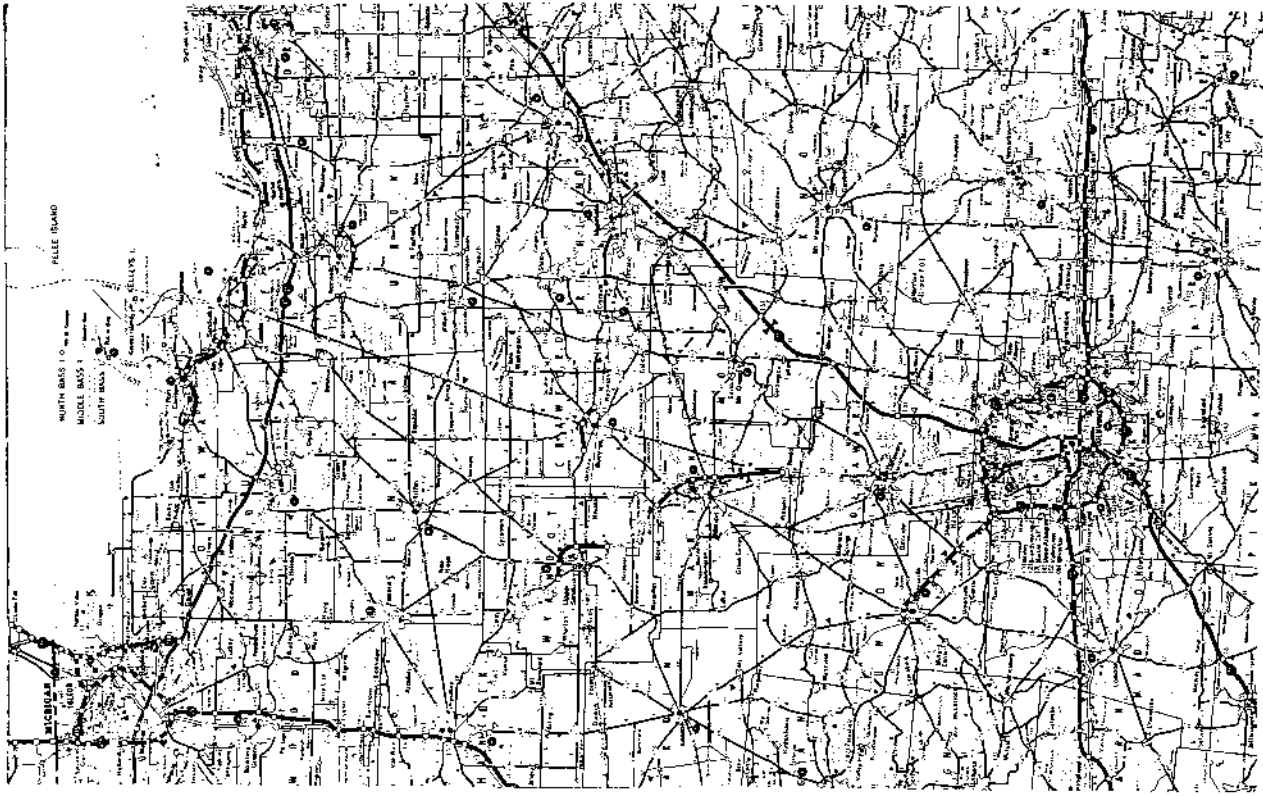
1. Large port protected by a peninsula that forms Erie Harbor and Presque Isle Bay.
2. Presque Isle State Park provides recreational facilities for boating, swimming, fishing, hiking, picnicking, and winter sports of skiing, skating, sledding and ice fishing.
3. Many historic 19th century structures.

Port Dover, Ontario

1. Lake Erie's largest commercial fishing port.
2. Harbor for many fishing boats and pleasure craft.
3. Resort area, scenic shores, campgrounds.
4. Year-round population of 3300.

Port Colborne, Ontario

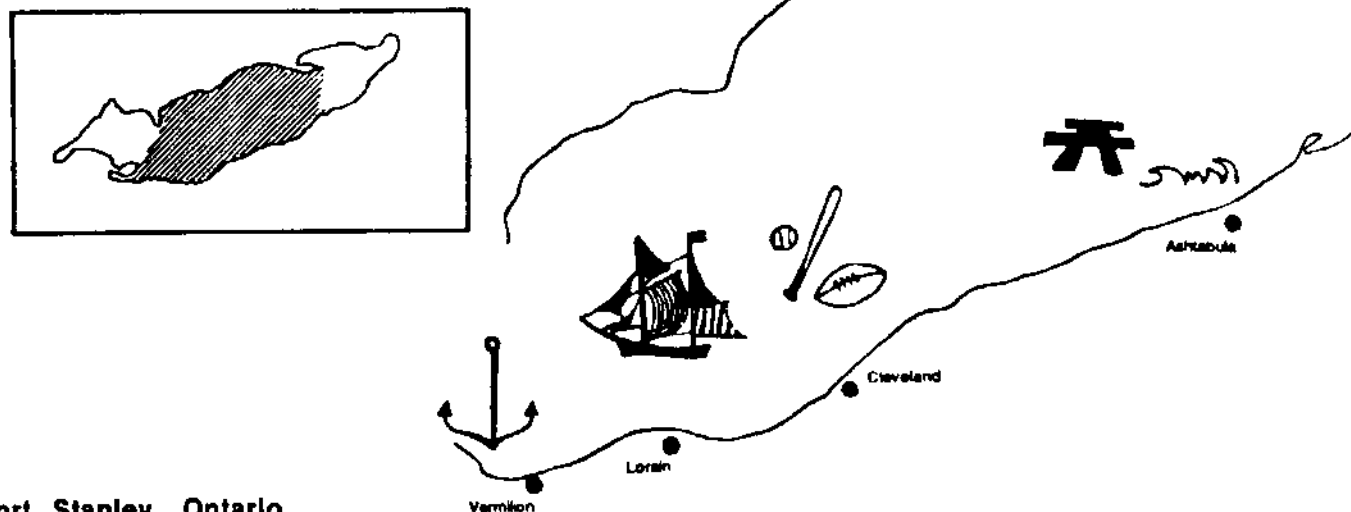
1. Site of Welland Canal's entrance to Lake Erie.
2. Lock system that lets ships go between Lakes Erie and Ontario.
3. Sand beaches, marinas, sport fishing and sightseeing.
4. Displays of canal and lake artifacts in Port Colborne Historical and Marine Museum.



SCALE
0 5 10
One inch equals 10 miles

MAP C

CENTRAL BASIN DATA SHEET



Port Stanley, Ontario

1. Quiet countryside, scenic valley.
2. Small resort town, fine beaches, spacious campsites.
3. Fishing and pleasure craft.

Vermilion, Ohio

1. City of rich nautical history, formerly known as "Home of the Captains."
2. Site of Great Lakes Historical Society's Museum and Harbor Town 1837 (historic village).
3. Large fleets of pleasure craft on both the river and its lagoons.
4. Population of 10,000.

Lorain, Ohio

1. Large port, heavily industrialized.
2. Formerly supported shipbuilding activity and automobile manufacturing.
3. Large variety of boat facilities, a historic lighthouse and a harbor at the mouth of the Black River.
4. Large residential areas for a population of about 80,000.

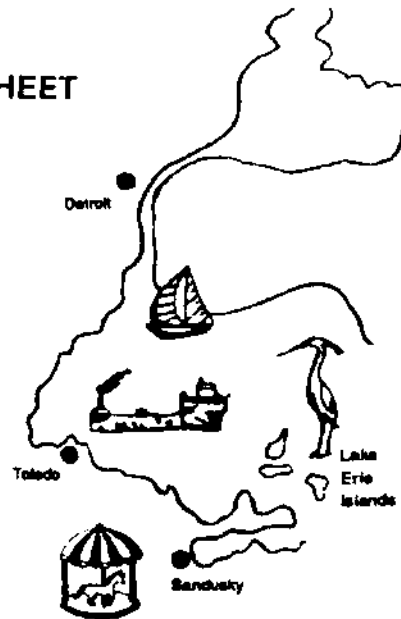
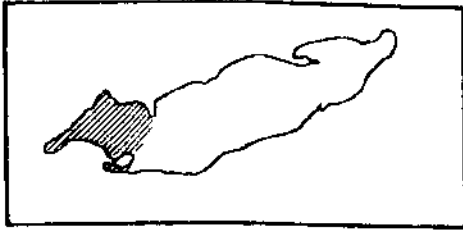
Cleveland, Ohio

1. Second largest city in Lake Erie region, with a metropolitan population of over 1,000,000.
2. Port that is active in manufacturing, industry and shipping.
3. Sailing regattas and speedboat races; host of "Days of the Ships" festival.
4. Professional sports teams in football, baseball, basketball and soccer.
5. Concentration of art, science and history museums as well as educational facilities in the University Circle area.
6. East of the metropolitan area are Mentor Marsh Preserve and Headlands Dune Preserve. The "Emerald Necklace," a well developed system of metroparks, contains natural areas with active nature programs, varied habitat and diverse wildlife.

Ashtabula, Ohio

1. Commercial shipping traffic that specializes in coal and iron transport.
2. Recreational facilities for boating, fishing and swimming.
3. Historical sites for shipping and railroads.
4. Population of 25,000.

WESTERN BASIN DATA SHEET



Detroit, Michigan

1. Most populated area in Lake Erie region with a metropolitan area of over 2,000,000 people.
2. Many marinas and exclusive yacht clubs.
3. Variety of museums (art, science, historical) with Greenfield Village and Henry Ford Museum nearby.
4. Year-round professional sports (football, baseball, hockey, basketball) and cultural events at facilities such as the Renaissance Center and Civic Center.

Toledo, Ohio

1. Largest port on Lake Erie. Natural harbor with 35 miles of lake front.
2. Cargo shipping (coal, iron ore, grain, oil, dry bulk).
3. Natural areas for recreation include a Metropark system and Maumee Bay State Park. Oak Openings, one of the Metroparks, is Ohio's only moving sand dunes area.
4. Historic and cultural features such as Toledo Museum of Art, Fort Meigs, Wolcott Complex (historical village) and Toledo Zoo.
5. Population over 350,000.

Lake Erie Islands

1. Many different environments (open water, marsh, mature forest).
2. Supports a wide variety of birds and wildlife.
3. Four islands (Kelleys, Pelee, South Bass and Middle Bass) can be reached by ferry from the mainland.
4. West Sister Island has Ohio's only Wilderness Area.
5. Wineries, caves, glacial formations, nineteenth century mansions, campgrounds and harbors.

Sandusky, Ohio

1. Many water-related recreational opportunities and abundant hunting, fishing and camping sites.
2. Large amusement park (Cedar Point)
3. Lakeside resorts, wineries and natural areas.
4. Major center of shipping and industry with one of the largest coal-shipping ports.
5. City population of about 30,000.

Catawba Island and Marblehead

1. Important resort area (Lakeside) and sport fishing/boating site. Many cottages and marinas.
2. East Harbor State Park has extensive camping facilities.
3. Marblehead has the oldest operating lighthouse on the Great Lakes.

CAPTAIN MARY THYME

Captain Mary Thyme is taking two months leave from her duties at sea. During that time she would like to study different types of vessels. She would like to do her cruising from the shore and study a wide variety of boats. For a change from the sea to the lake, she would like to see some commercial fishing vessels, passenger ferries and/or freighters, as well as see recreational types of boats that cruise through Lake Erie.

S. RANGE AND COMPANY

"Shooter" Range and his office crew from Toledo are planning a get-away weekend. These six hunters aim to put their skills to test in the woods. They want ideas on what nearby game areas are available to them. White-tailed deer, cottontail and snowshoe rabbits, and squirrels are favored targets in their outings. They prefer public hunting areas that also have shooting ranges close by. They like to relax by birdwatching and stalking non-game animals, so a nearby wildlife refuge would be welcomed.

PIERRE DOCK

Pierre Dock, the renowned eccentric millionaire, is famous for the number of yachts he owns. He has just added to his fleet and would like to launch his newest boat on Lake Erie. Mr. Dock requests a large marina that is close to fine restaurants, specialty shops, entertainment and cultural events. He does not want to be anywhere near cargo freighters, shipping terminals or industrial reminders. Leisure and pleasure craft are more to his liking. He is accustomed to the best and expects a recommendation that will service his needs.

CIVIC SOCIETY

Members of the Cincinnati civic society called "atTENTion" roll up their sleeping bags monthly, pack their gear and set out for the outdoors. This month the group is waterbound and is looking for a campsite that is near Lake Erie. They hope to have boating facilities at the campsite or close by because on-the-water activities are the main interest for their outing. Since they are from the big city, they prefer a small-town environment.

ROBIN'S FAMILY

Mr. and Mrs. Robin and their son Drew like out-of-the-way places. Islands or isolated spots are the types of places that they prefer for their vacation and recreation needs. They are hoping to find a location that is away from the mainland and would be thrilled at the chance to ride a ferry to get there. They would like to find a natural and undeveloped area that would satisfy their desire to explore and discover.

BLEACHER FAMILY

Fantasia Bleacher and her two sons are sports enthusiasts. They are sideline experts and love to see a professional or collegiate team in action. Since they are new to Ohio, they are seeking advice as to where the best locations would be for athletic contests. They are spectator fans of nearly every sport but especially love football and boat races. A locality that has both would be perfect. They live in Akron, but they wouldn't mind traveling even two hours for the thrills of viewing the games and races.

WOODROW TRAILS

The serenity of the woods and the challenge of exploration is what "Woody" Trails is after. His hobby is backpacking and he wants to hike on a continuous route for his two-week vacation. He's interested in unusual rock formations and different environments. What suggestions would you give him for his trek through the wilderness? His concern is that since he is backpacking alone it is important that he be on an established trail. This trail should be continuous and long enough that he could hike parts of it on several vacations and still see new areas.

BASSMAN FAMILY

The Bassman family (Mrs., Mr. and young son, Fry) like to spend weekends in a relaxing setting. The only requirement is that there are fish that bite and coves to anchor in from early morning to late at night. They prefer cold water fish such as whitefish, lake trout and especially walleye, but will be happy with any fish that takes to their bait. They hope to make this spot their regular weekend haven, so they are trusting that you'll lead them to plentiful fish in an area not far from their Youngstown home.

CRAFT AND COMPANY

Walter Craft and his neighbors Kay Act and Candy New of Bowling Green venture out on the water as often as possible. Whether it's sailing, canoeing, rafting or rowing, they are interested in places where they can set off from the shore. They are asking your assistance in providing suggestions for at least three different aquatic excursions. Each of these outings should be within an hour's drive from their home, since they want to spend most of the day in a boat and not in a car.

TAGE AND ASSOCIATES

Harry Tage and his buddies from the Elks Club would like to make the rounds of the memorable historic sites of the state. Mr. Tage is proud of his ancestors who helped win a naval battle with Commodore Perry in the War of 1812, and his relatives who assisted Reverend Henson in the rehabilitation and resettlement of runaway slaves in the late 1800s. He would like to visit the numerous sites that are famous from events of the past. Time for the trip is limited, so find them 2 or 3 historic landmarks, monuments or facilities within a 100-mile radius.

MS. MEADOWS

Ms. Meadows and her niece Blossom love to explore nature whenever they can break away from their crowded urban life in Cleveland. They are looking for an area where they can hike and observe the wonders of nature in field and stream. A forest that has lots of birds, mammals, reptiles and amphibians is their favorite type of place. In addition to their quiet walks, they are interested in places where some nature programs are offered. Nearby sanctuaries, arboretums and/or nature centers are important to them.

CHILLICOTHE TEAM

The "Strike It Wild" bowling team of Chillicothe is planning its annual outing and is looking for a site that will keep the team entertained non-stop. Distance and funds aren't a factor as long as they have a wild, fun-filled, active, all day and all night celebration. Amusement parks, recreation facilities and novel attractions are samples of what could keep this group content.

MR. AND MRS. TUDE

Mr. and Mrs. Sol E. Tude have one week a month as a break from their law firm in Columbus. They would like to have this time to rest in a secluded location away from the fast paced life style. Nearness to calm water would be very soothing. They find it relaxing just to watch herons, gulls and other shore and marsh birds. Besides this, they are not interested in anything but rest, quiet, and absence of activity. They will travel anywhere around the lake to have this week of peace.

PEP CLUB

The Spiritettes (Fostoria Pep Club, Class of '34) have a biennial reunion where they hope to recharge and channel their energies until the next reunion. They are looking for a spot where a variety of group activities can take place. They would like to golf, play softball, have picnics, play Bingo and have long night campfires where they can sing and tell stories. They wouldn't mind camping, but prefer cabins near their hometown. It wouldn't be a bad idea to make sure that a hospital is nearby!

BART LOCKETT

Bart Lockett's ancestors were some of the original builders of the Ohio-Erie Canal back in the 1820s. Since this historic canal system was abandoned when the railroads came, his family moved south. Whenever Bart travels north, he makes it a point to spend some time viewing the changes on different lock and canal systems. Before he heads for Ohio, he would like to know of a region where he might see a canal and lock system in operation near his beloved Lake Erie.

MRS. AND MR. TICK

Honey and Roman Tick have been blissfully married for a long time. Since they have worked hard all their lives, they would like to finally take their first honeymoon in celebration of their 50th anniversary. Their hopes include travel to a place that would be very romantic. Since they have never been on a vacation, a site that would have panoramic views, spectacular sights and a wide offering of activities would be ideal for them.

KENTUCKY CRUSADERS

The Kentucky chapter of Cultural Crusaders has monthly journeys where members hope to view displays, exhibits and centers of treasured artifacts. They are interested in art, natural history, and science facilities. If possible, they would like to see a sample of each in their two days/ one night stay in the Lake Erie area. Contact either Cy Enz or Art Est as soon as possible with recommendations of museum choices.

FROSTY RUNN

With skis in hand, Frosty Runn and his cousins eagerly await the first snowflakes of winter. Even though they have downhill skied in past years, they would like to try crosscountry skiing this winter. In addition to their skis, they will be bringing their fishing gear. After gliding through the snow they would like to drill through the ice and try their luck at catching some of Lake Erie's finest fish. They are counting on your suggestions for an area where they can energetically plow through the snowy countryside and then relax with time for ice fishing.

REFERENCES

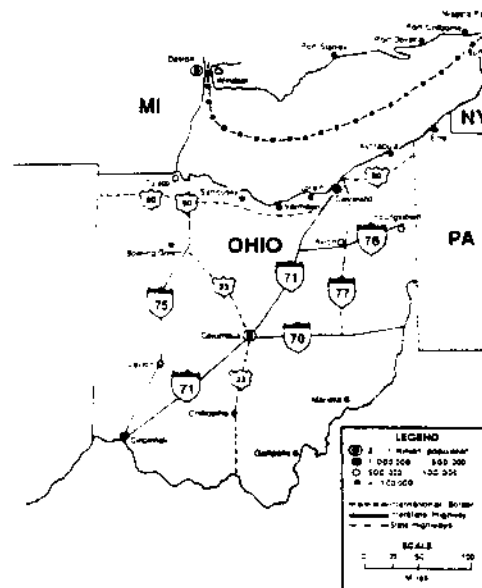
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EVALUATION ITEMS

- Lake Erie's reputation as a fishing spot has earned it the title of
 - Sea World of the North.
 - Walleye Capital of the World.
 - Perch Paradise.
 - Angler's Port.
- The northern shores of Lake Erie are
 - closest to the Atlantic Ocean.
 - bordered by New York and Indiana.
 - a part of Canada.
 - all of the above.
- The Central Basin region of Lake Erie has
 - no major industrial cities.
 - a group of offshore islands.
 - wildlife areas and nature preserves.
 - the only area with sand dunes.
- The flow of water in Lake Erie
 - is from north to south.
 - ends at Lake Huron.
 - is from west to east.
 - is controlled by canals.

- In the Lake Erie region, Canadian cities
 - are found only in the Eastern Basin region.
 - have large populations and are industrialized.
 - are the best sites for large amusement parks.
 - are primarily located on the northern shores.
- The shoreline of Lake Erie
 - is divided by geography and geology into three parts
 - has more recreational areas than all other Great Lakes.
 - borders Ohio, New York and Pennsylvania.
 - all of the above.

Using this map answer Questions 7-9.



- Calculate the shortest distance from Toledo to Columbus using the main state routes.
 - 75 miles
 - 135 miles
 - 200 miles
 - 225 miles
- What is the largest city in the Lake Erie region?
 - Niagara Falls
 - Detroit
 - Cleveland
 - Erie
- Find the approximate length of Lake Erie's southern shore.
 - 100 miles
 - 150 miles
 - 200 miles
 - 250 miles
- Ports on Lake Erie are
 - primarily active in shipping coal, iron ore and grain.
 - operating under Canadian regulations.
 - in competition with expanding yacht clubs.
 - used only for international trading.
- Lake Erie recreational opportunities
 - are restricted because of harsh winters and severe winds.
 - include year-round activities, both indoors and out.
 - are primarily indoor activities because of climate.
 - exclude those people who don't have a boat.



Ohio Sea Grant Education
The Ohio State University
059 Ramseyer Hall
29 West Woodruff
Columbus, OH 43210
(614) 292-1078

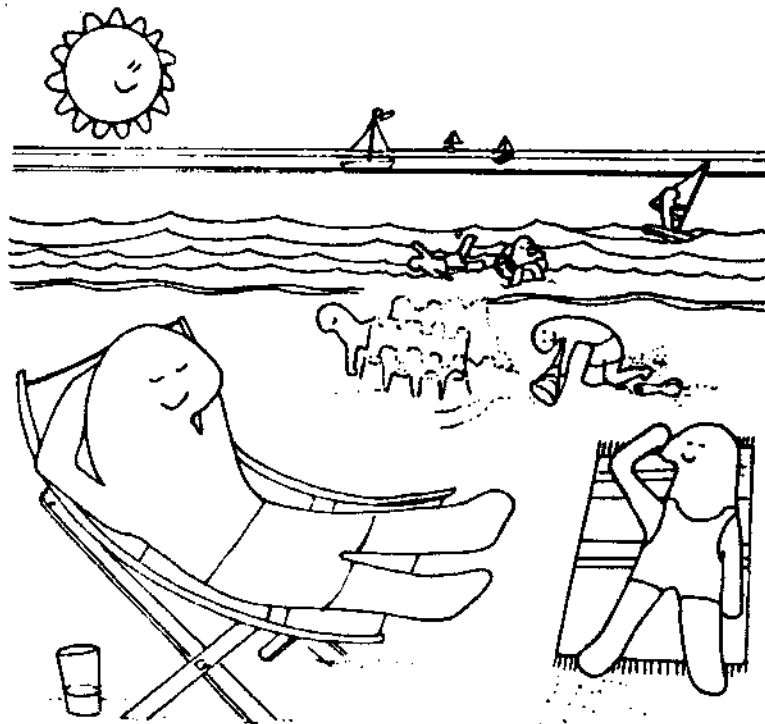
Charles E. Herdendorf, Program Director
Rosanne W. Fortner, Assistant Director for Education
Victor J. Mayer, Research Coordinator



A Great Lake Vacation

by
Marylin Lisowski and Rosanne W. Fortner
The Ohio State University

Vacation Database by Christopher N. Fortner



**OEAGLS—Oceanic
Education
Activities
for
Great
Lakes
Schools**

OEAGLS Investigation # 24

**Completed May 1985
Revised February 1987**

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A GREAT LAKE VACATION

by
Marylin Lisowski and Rosanne W. Fortner

INTRODUCTION

What area of Ohio lures and hooks more than 1,000,000 licensed sport anglers every year? None other than the Great Lake Erie! These happy anglers have reeled in more than 3,000,000 walleye in one year in just the Western Basin, reports Ohio Sea Grant.

The promise of abundant walleye, perch and bass, however, isn't the only good catch of Lake Erie. Many types of recreational activities are possible. Lake Erie has the highest proportion of shoreline set aside for leisure time happenings of any of the Great Lakes. Different recreational possibilities exist from the Western Basin, where Lake Erie receives its water from the Detroit River, to the Eastern Basin, where the flow continues to Lake Ontario.

Over 1300 acres of beach, numerous parks, hunting and wildlife preserves, boating and cultural facilities help to make Lake Erie more than just the "Walleye Capital of the World." You will find out more about these great opportunities for fun, relaxation and entertainment in these activities.

OBJECTIVES: When you have completed these activities you will be able to

1. Describe the variety of recreational activities at Lake Erie.
2. Identify specific geographic regions that support distinct recreational opportunities.
3. Locate selected areas on different maps of the Lake Erie region.
4. Calculate distances on maps using the maps' scales.
5. Plan, agree upon and recommend a place for a certain type of recreation.
6. Tell what you would most like to do for recreation at Lake Erie.

ACTIVITY A: DO YOU MEASURE UP ON MAP SCALES?

Maps are like a lost and found department. Some people use maps when they are lost, but we will be using them to find interesting facts about the Lake Erie region. Maps can be used in locating special sites and attractions and in calculating the distances to these areas. Special aids can help in reading a map. The legend gives information quickly and easily. It is usually found in the right hand corner, beneath the map.

MATERIALS: Ruler, colored pencils, maps

PROCEDURE: Refer to the legend and use Map B to do the following.

1. Mark the international border in red.
2. Underline the names of the 3 most populated cities in the Lake Erie region. The region extends from Lake St. Clair on the western end to the Niagara River on the eastern end.
3. The Western Basin of Lake Erie extends from the western edge of the Lake to the islands that lie between Point Pelee and Marblehead. Outline the Western Basin in green.
4. The Eastern Basin stretches from Erie, PA, to Niagara Falls. Outline the Eastern Basin in blue.
5. Between the Western and Eastern Basins lies the Central Basin. Outline it in brown.
6. Draw arrows to show the direction that water flows in Lake Erie.
7. Mark in purple the major highways that run north and south through Ohio.

Map B can help you to identify and locate the following places.

8. Write the names of these cities on your answer sheet.
 - a) The coastal city in the Northeasternmost corner of Ohio.
 - b) The Central Basin city that is on the Northern Shore of Lake Erie.
 - c) The city that is the greatest distance from Lake Erie.
 - d) The Canadian city on the border of the U.S.
 - e) The lakeside city that has the most interstate highways crossing through it.

In this section refer to Maps A, B and C.

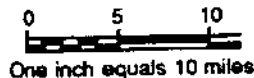
The official state highway map for Ohio has in its right corner a small but important symbol. It looks like this:



This symbol gives the **scale** of the map, a measure of how big the map parts are compared to the size of real distances in the state. Map scales can show you how far you must travel to get to a place. On this map the distances are given in miles, but you may wish to do some calculations in metric units later.

9. Maps A and B have different scales. Use the scales to estimate the distance from the State Capital, Columbus, to the city of Toledo on the shore of Lake Erie.
10. Were your answers the same using the different scales of Maps A and B? If not, which do you think was more accurate? Why?
11. Map C is a section of the state's official highway map. Mark the most direct route from Columbus to Toledo. You may use as many route numbers as you need to reach your destination in as few miles as possible.

The scale of the road map is shown here:



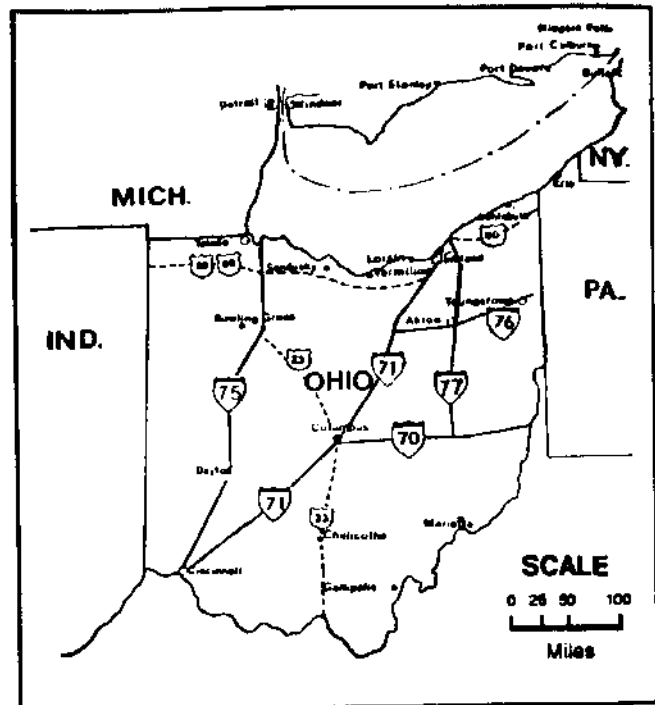
12. Using the scale, estimate the number of miles on your route.
13. Is your answer more accurate than the one in Question 10? Why?

Look again at the road map section. Along the route you chose there are small numbers that show

the length, in miles, of a section of road. The section measured is the distance between major intersections. For example, the distance from Huron to Vermilion by Route 6 is about 12 miles.

14. On the route you marked to Toledo, find all the little distance numbers and add them together. Write the distance on your answer sheet.

Without actually driving along the route and getting the distance from your car's odometer, this is probably the most accurate method of estimating distances on the map.



MAP A

Try these other activities to learn what you can do using the scale of a map. Use Map B.

- 15a. Calculate the length of Lake Erie's Ohio shoreline.
- b. What is the distance from where you live to the closest point on Lake Erie?
- c. If you traveled along the major highways, what would be the shortest route from Marietta to the Toledo area? List the highway used and the approximate mileage.
- d. What is the distance from Sandusky to the nearest city in Pennsylvania?

ACTIVITY B: WHAT LEISURE ACTIVITIES CAN BE DONE AT LAKE ERIE?

In this activity you will need to estimate the distances to some recreation areas near Lake Erie. Use what you have learned about map scales to calculate these distances.

There never seems to be enough time to do the things that you want to do. However, planning for recreation can free more time to spend in the leisure activity itself.

To help in planning leisure activities, teams of "recreational consultants" will be organized to discuss, advise and locate good sites for various outings. You will be part of a consulting team.

MATERIALS: Request cards (scenarios), Maps B and C, Basin data sheets, Table 1. (If one is available, an Apple][computer with one disk drive and the Vacation Database can be used.)

PROCEDURE: Work in groups of 4. Your teacher will give you a recreational request, and with your team you will try to find the best site for the request that was given. Use the maps, the Basin data sheets or computer program, and brochures from the areas to guide in your choice of recreation areas.

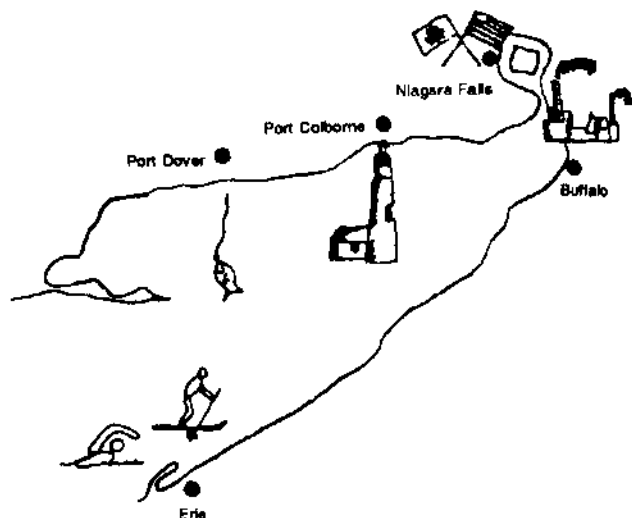
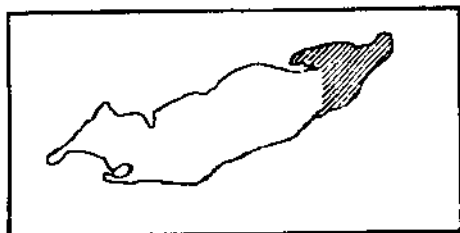
1. Read through the request and use the maps and data sheets or computer program to locate the area or city that is best for what is requested. Use your map skills to check if the distances are within the desired limits.
2. Agree on one site with your team members and prepare to share your reasons for the choice.
3. Record the information in Table 1 after each decision. As other teams report their results, record these in Table 1 as well.
4. Create your own recreation request. Challenge another team to find the right spot for you in the Lake Erie area.

NOTES ON USING THE VACATION DATABASE

The computer program was written by Chris Fortner, age 15. He tried to make it as friendly and as useful as possible for you. It doesn't contain much more information than the Data Sheets, but it demonstrates another way to find sites for the recreation requests. Here's how to use it.

1. Insert the disk, close the door of the drive, and turn on the computer. If you are using an Apple][e or][c, put the CAPS LOCK down.
2. The main working screen tells you the important moves you can make: Arrows move cursor; <Return> chooses whatever the cursor is on.
3. Your job is to CHOOSE CATEGORIES first, then when the NUMBER OF ENTRIES SELECTED line equals 1-3, read those entries to see if the sites really fill the needs of your recreation clients.
4. You can choose every category (one at a time) if you want to, but you can ignore any category that doesn't seem important for your client. The more categories you can select, the closer you can get to meeting specific needs.

EASTERN BASIN DATA SHEET



Niagara Falls

1. Thundering waterfalls with many viewing towers and scenic outposts.
2. Entertainment facilities, tourist attractions, historic sites and large park system with county camping facilities.
3. Niagara-on-the-Lake, a nearby village of century old buildings, cottages, specialty shops and restaurants.
4. Beginning of Bruce Trail, a 430-mile hiking trail of main routes and side trails along the Niagara Escarpment.
5. Niagara Falls is actually two cities, one in New York and one in Ontario.

Buffalo, New York

1. Very attractive port for commercial shipping.
2. Industrial city.
3. Historical sites and museums of science, military history, canal development, art and sculpture.
4. Access to Erie and Black Rock Canals.
5. Supports professional sports teams (football, hockey, minor league baseball).

Erie, Pennsylvania

1. Large port protected by a peninsula that forms Erie Harbor and Presque Isle Bay.
2. Presque Isle State Park provides recreational facilities for boating, swimming, fishing, hiking, picnicking, and winter sports of skiing, skating, sledding and ice fishing.
3. Many historic 19th century structures.

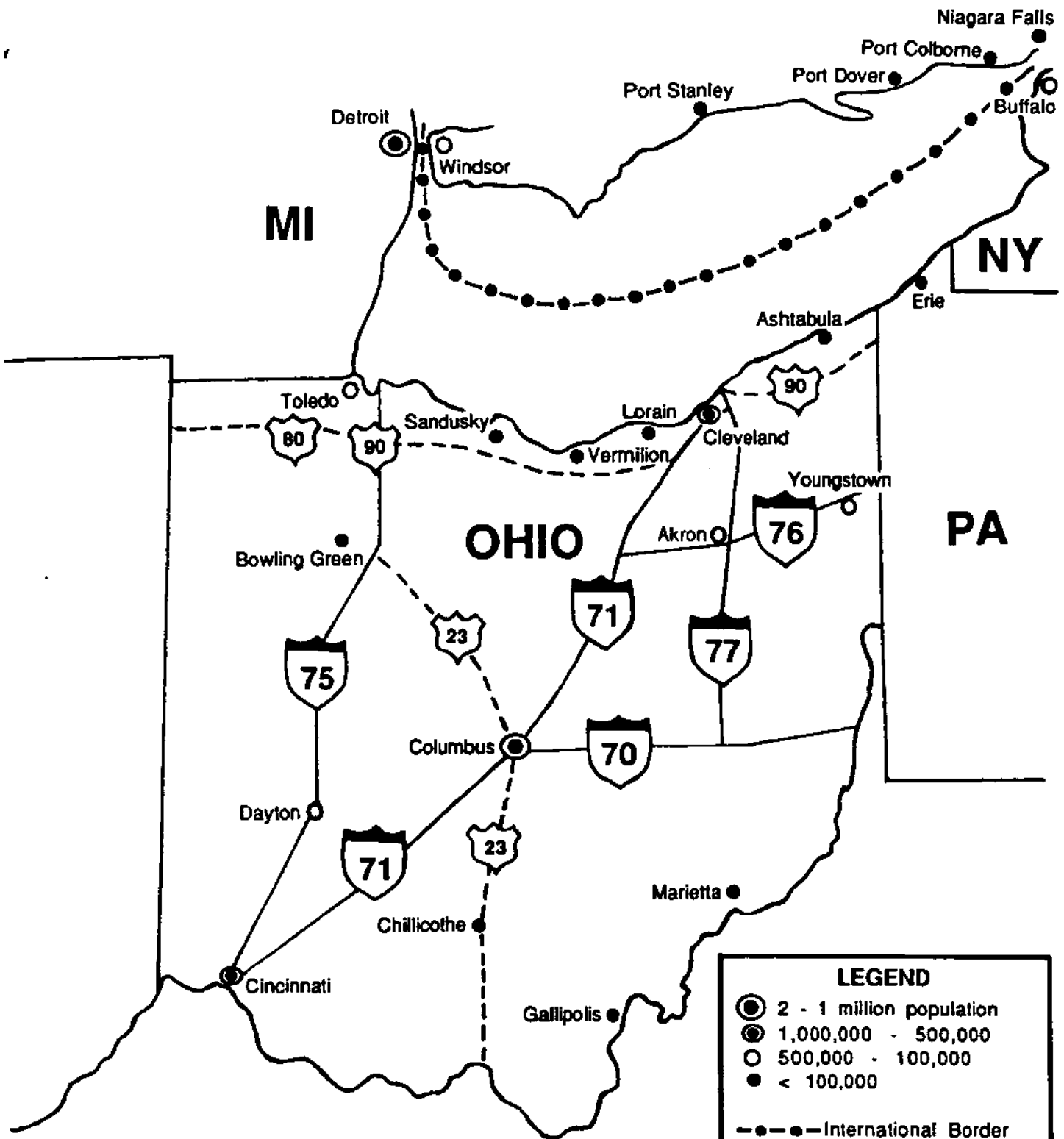
Port Dover, Ontario

1. Lake Erie's largest commercial fishing port.
2. Harbor for many fishing boats and pleasure craft.
3. Resort area, scenic shores, campgrounds.
4. Year-round population of 3300.

Port Colborne, Ontario

1. Site of Welland Canal's entrance to Lake Erie.
2. Lock system that lets ships go between Lakes Erie and Ontario.
3. Sand beaches, marinas, sport fishing and sightseeing.
4. Displays of canal and lake artifacts in Port Colborne Historical and Marine Museum.

MAP B



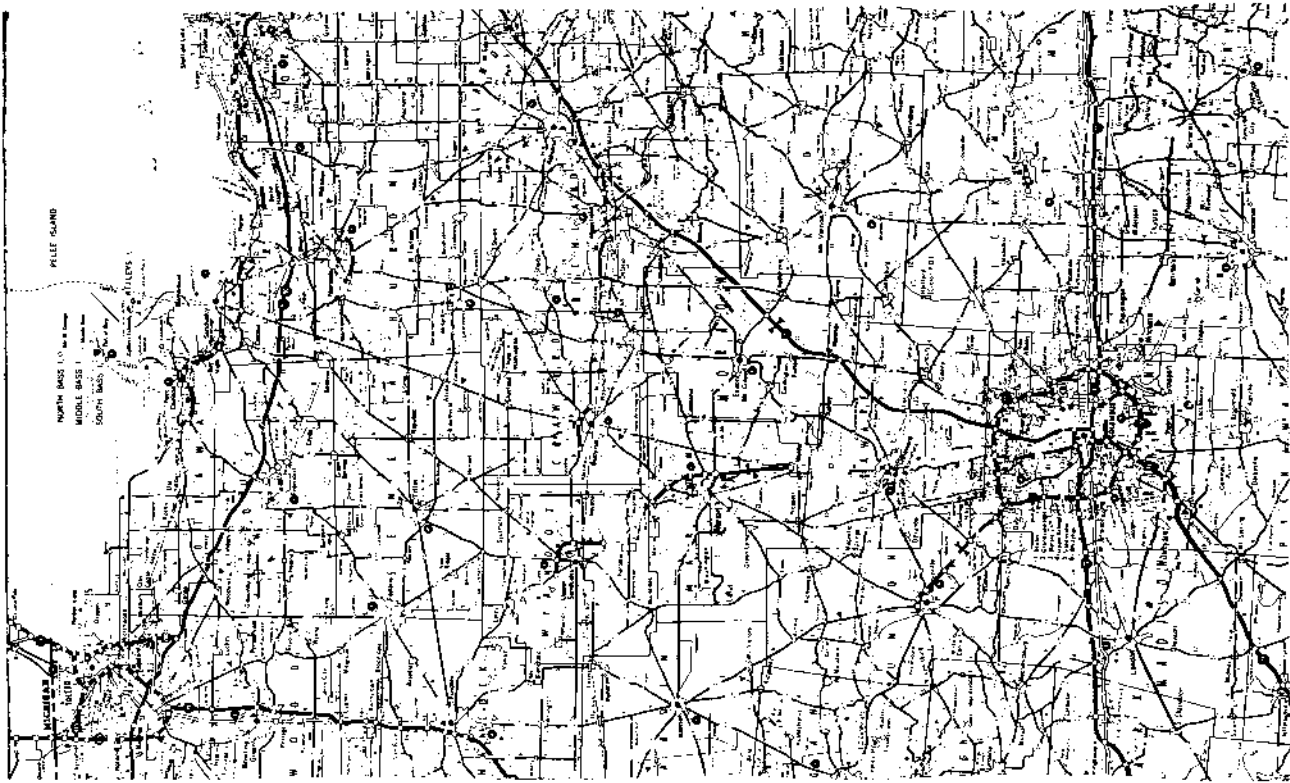
LEGEND

- (Large) 2 - 1 million population
- (Medium) 1,000,000 - 500,000
- (Small) 500,000 - 100,000
- (Dot) < 100,000
- International Border
- Interstate Highway
- - - State Highways

SCALE

0 25 50 100

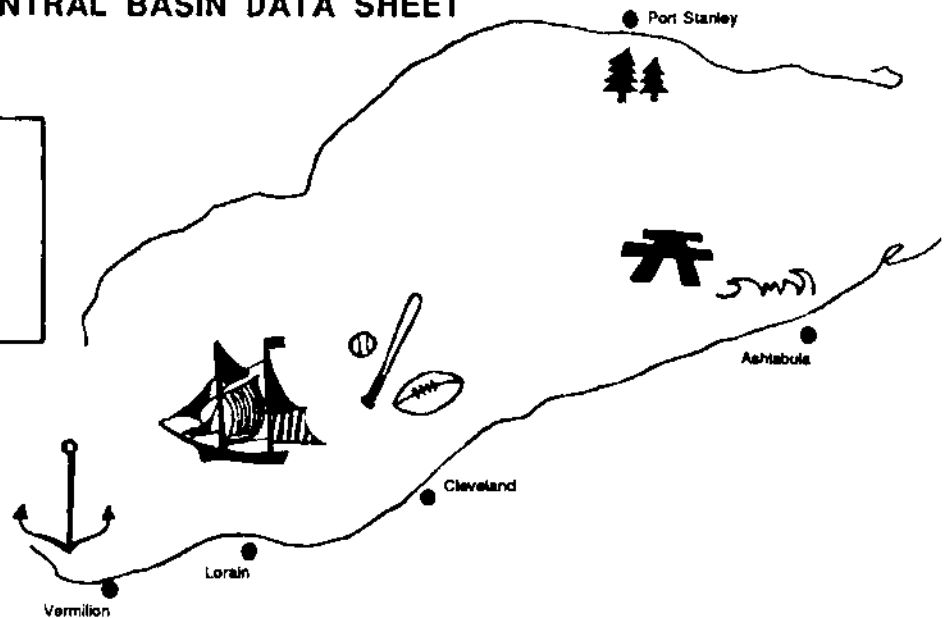
Miles



SCALE
0 5 10
One inch equals 10 miles

MAP C

CENTRAL BASIN DATA SHEET



Port Stanley, Ontario

1. Quiet countryside, scenic valley.
2. Small resort town, fine beaches, spacious campsites.
3. Fishing and pleasure craft.

Vermilion, Ohio

1. City of rich nautical history, formerly known as "Home of the Captains."
2. Site of Great Lakes Historical Society's Museum and Harbor Town 1837 (historic village).
3. Large fleets of pleasure craft on both the river and its lagoons.
4. Population of 10,000.

Lorain, Ohio

1. Large port, heavily industrialized.
2. Formerly supported shipbuilding activity and automobile manufacturing.
3. Large variety of boat facilities, a historic lighthouse and a harbor at the mouth of the Black River.
4. Large residential areas for a population of about 80,000.

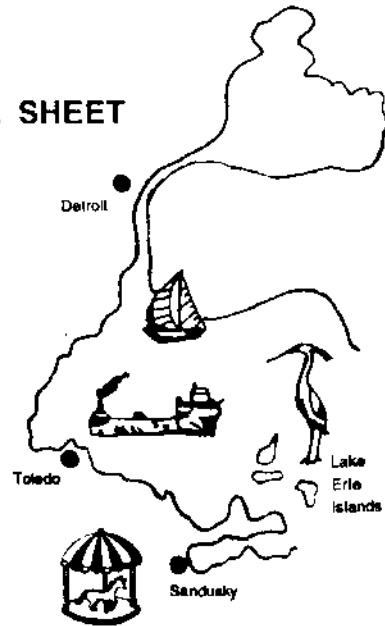
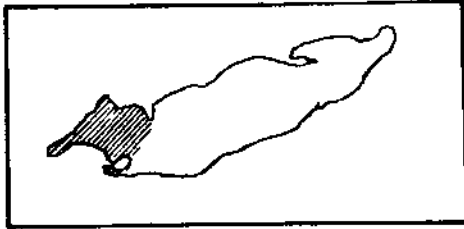
Cleveland, Ohio

1. Second largest city in Lake Erie region, with a metropolitan population of over 1,000,000.
2. Port that is active in manufacturing, industry and shipping.
3. Sailing regattas and speedboat races; host of "Days of the Ships" festival.
4. Professional sports teams in football, baseball, basketball and soccer.
5. Concentration of art, science and history museums as well as educational facilities in the University Circle area.
6. East of the metropolitan area are Mentor Marsh Preserve and Headlands Dune Preserve. The "Emerald Necklace," a well developed system of metroparks, contains natural areas with active nature programs, varied habitat and diverse wildlife.

Ashtabula, Ohio

1. Commercial shipping traffic that specializes in coal and iron transport.
2. Recreational facilities for boating, fishing and swimming.
3. Historical sites for shipping and railroads.
4. Population of 25,000.

WESTERN BASIN DATA SHEET



Detroit, Michigan

1. Most populated area in Lake Erie region with a metropolitan area of over 2,000,000 people.
2. Many marinas and exclusive yacht clubs.
3. Variety of museums (art, science, historical) with Greenfield Village and Henry Ford Museum nearby.
4. Year-round professional sports (football, baseball, hockey, basketball) and cultural events at facilities such as the Renaissance Center and Civic Center.

Toledo, Ohio

1. Largest port on Lake Erie. Natural harbor with 35 miles of lake front.
2. Cargo shipping (coal, iron ore, grain, oil, dry bulk).
3. Natural areas for recreation include a Metropark system and Maumee Bay State Park. Oak Openings, one of the Metroparks, is Ohio's only moving sand dunes area.
4. Historic and cultural features such as Toledo Museum of Art, Fort Meigs, Wolcott Complex (historical village) and Toledo Zoo.
5. Population over 350,000.

Lake Erie Islands

1. Many different environments (open water, marsh, mature forest).
2. Supports a wide variety of birds and wildlife.
3. Four islands (Kelleys, Pelee, South Bass and Middle Bass) can be reached by ferry from the mainland.
4. West Sister Island has Ohio's only Wilderness Area.
5. Wineries, caves, glacial formations, nineteenth century mansions, campgrounds and harbors.

Sandusky, Ohio

1. Many water-related recreational opportunities and abundant hunting, fishing and camping sites.
2. Large amusement park (Cedar Point)
3. Lakeside resorts, wineries and natural areas.
4. Major center of shipping and industry with one of the largest coal-shipping ports.
5. City population of about 30,000.

Catawba Island and Marblehead

1. Important resort area (Lakeside) and sport fishing/boating site. Many cottages and marinas.
2. East Harbor State Park has extensive camping facilities.
3. Marblehead has the oldest operating lighthouse on the Great Lakes.

NAME _____

A GREAT LAKE VACATION Worksheet

ACTIVITY A: DO YOU MEASURE UP ON MAP SCALES?

1-7. Follow directions. Answer on Map B.

- 8a. The coastal city in the Northeastern corner of Ohio is _____.
- b. The Central Basin city on the north shore of Lake Erie is _____.
- c. The city that is the greatest distance from Lake Erie is _____.
- d. The Canadian city on the border of the U.S. is _____.
- e. The lakeside city with the most interstate highways passing through it is _____.

9. Distance from Columbus to Toledo: Map A = _____ miles Map B = _____ miles

10. Were the two answers in #9 the same? _____.

If not, which do you think was more accurate? _____.

Why? _____.

11. Mark Map C with the most direct route from Columbus to Toledo.

12. Estimate the length of the route: _____ miles

13. Is the answer in #12 more accurate than the one in #10? _____. Why? _____.

14. The distance numbers add up to _____ miles.

15a. The length of Lake Erie's shoreline is _____ miles.

b. The distance from where I live to Lake Erie is _____ miles.

c. From Marietta to Toledo, take highway(s) numbered _____. It is _____ miles.

d. The closest Pennsylvania city is _____. From Sandusky to that city is _____ miles.

ACTIVITY B: WHAT LEISURE ACTIVITIES CAN BE DONE AT LAKE ERIE?

1-5. Follow directions. Record your recreational advice in Table 1, then record others as they are presented.

6. Write your own recreation request here: _____

TABLE 1. Recreation Consultants' Reports

GROUP	RECREATION NEEDS	REGION	CITY/AREA SELECTED	REASONS

NATIONAL SEA GRANT DEPOSITORY

Pell Library Building - GSO

University of Rhode Island

Narragansett, RI 02882-1197 USA



Ohio Sea Grant Education

The Ohio State University

059 Ransbeyer Hall

29 West Woodruff

Columbus, OH 43210

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