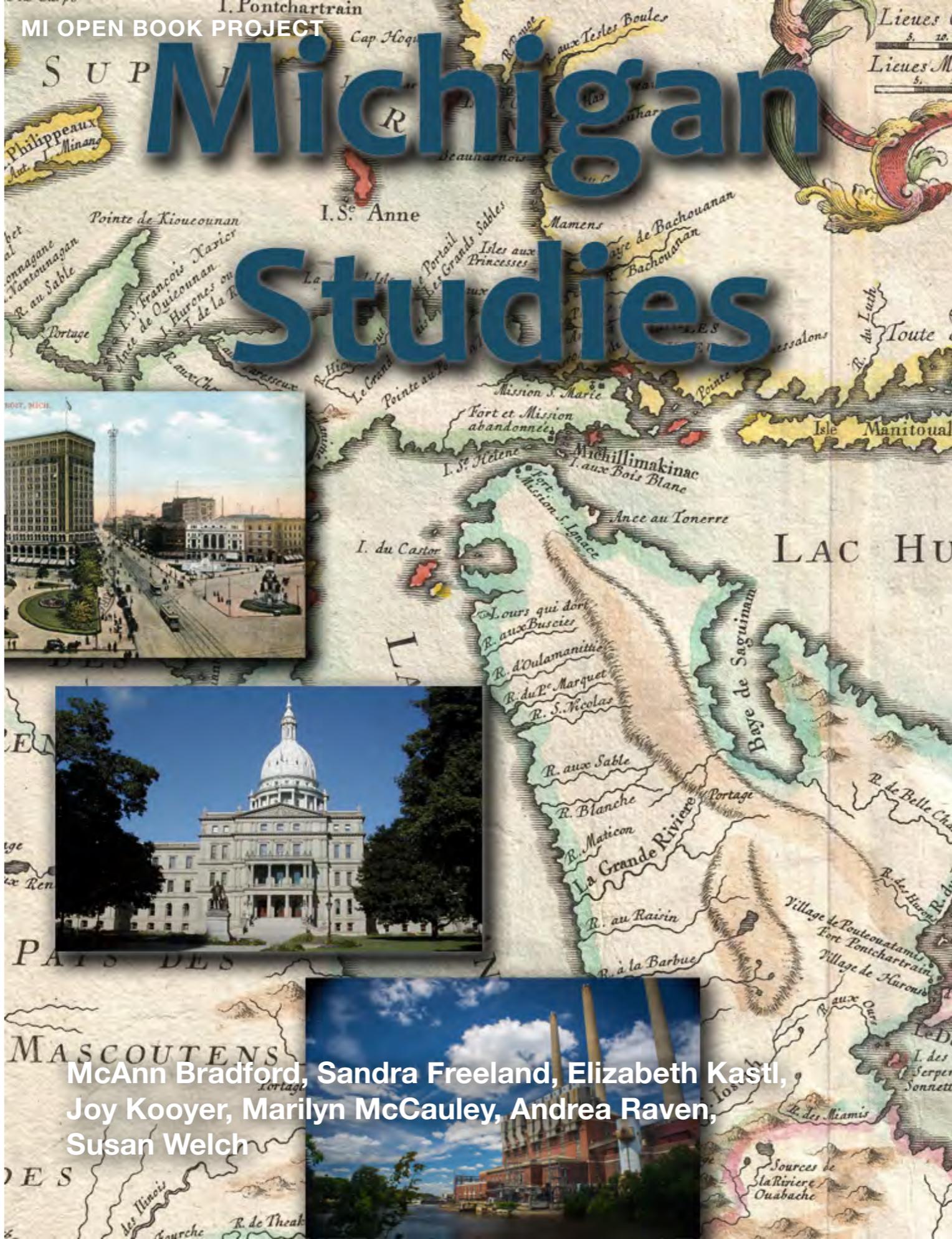


Michigan Studies



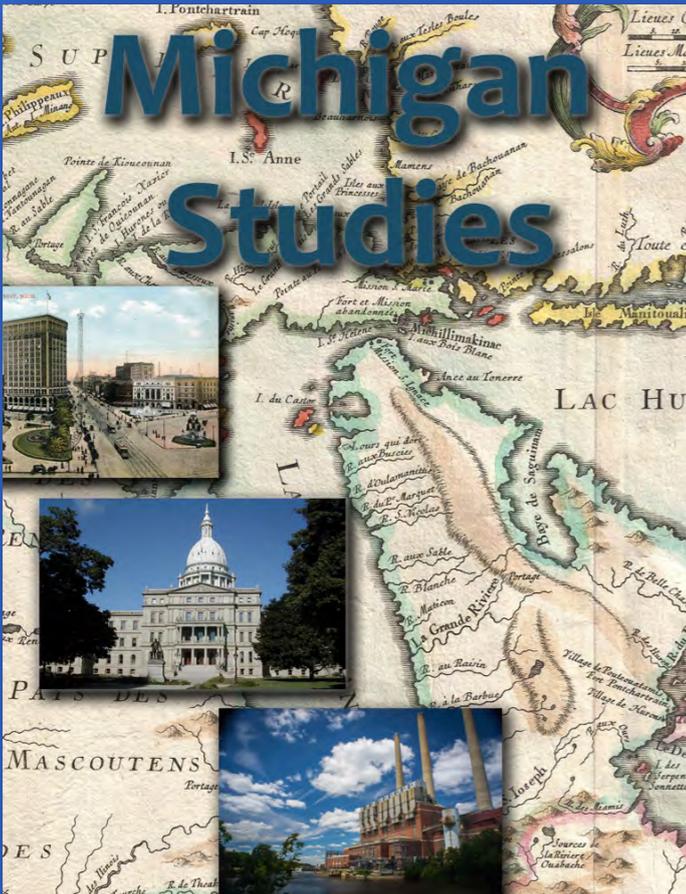
McAnn Bradford, Sandra Freeland, Elizabeth Kastl,
Joy Kooyer, Marilyn McCauley, Andrea Raven,
Susan Welch





MICHIGAN

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This is version 1.1 of this resource, released in September of 2016.

Information on the latest version and updates are available on the project homepage: <http://textbooks.wmisd.org/dashboard.html>



MICHIGAN OPEN BOOK PROJECT

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**MICHIGAN
OPEN BOOK PROJECT**

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McAnn teaches third grade all subjects at KND Elementary in Onekema Michigan.

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Little Traverse Bay Bands of Odawa Indians

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An advocate of social and eco-justice, Jannan Cotto, Education Director for the Little Traverse Bay Bands of Odawa Indians, has worked in Indigenous Education for 9 years in both urban and reservation communities with the goal of contributing to the educational sovereignty, healing, and well-being of Indigenous people. She graduated from Northeastern Illinois University with a degree in inter-disciplinary studies with an emphasis in English and Education and a minor in Psychology. She is currently studying in an online Master's program at Eastern Michigan University studying Social Foundations of Education with a concentration in eco-justice. She serves as the current Chair of the Confederation of Michigan Tribal Education Directors and serves on the Board of Regents for Bay Mills Community College. One of the focuses of her work includes developing Indigenous land-based education for both Indigenous and non-Indigenous learners that emphasizes Indigenous perspectives, encourages relationships with land, and inspires critical thinking and critical action in our global community. She is currently working on curriculum development through part-



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Sandy is a full time teacher at McBain Elementary School in McBain Michigan. She has taught Kindergarten and Third Grade during her time there. In addition to classroom teaching she's also provided technology professional development for the district. Outside of the school day she can be found learning from others in Twitter chats, participating in groups on Facebook, and working on developing a coding club for her school.





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Floyd M. Jewett Elementary School

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Beth is an elementary teacher from Floyd M. Jewett Elementary school, where she has worked in a variety of grade levels including first and third grade.

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Holland Public Schools

Joy received her Bachelor of Science degree from Southern Wesleyan University in Early Childhood Education and her Master's degree in the Art of Teaching from Marygrove College. She has always taught third grade and thinks it the best grade ever. She is the chairperson for the National Geographic Bee. Joy has been Holland Sentinel's Teacher Of The Year and been chosen for WGVU's, "Cool Teacher" award. She enjoys traveling. Her goal is to see all of the 50 state capitals and visit all of the MLB parks. Joy finds great pleasure in reading, scrapbooking and spending time with her husband, Jason and three children, Julia, 12 Harrison, 9 and Jameson, 2.



Marilyn McCauley

Surline Elementary

West Branch Rose City Schools

After attending a wonderful 2 year experience with the amazing professors at Kirtland Community College, I continued to work toward a Bachelors of Science Degree with the wonderful professors at Central Michigan University, also obtaining a teaching certificate. My focused subjects at CMU were language arts and social studies. Michigan State University, with its outstanding professionals, is where I enjoyed working for my Masters Degree in Education. Learning is a continuous journey I treasure through our expert COOR District and Surline Elementary instructors. I also enjoy independent studies I have done



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Dorothy Perry

Academic Services Coordinator

Little Traverse Bay Bands of Odawa Indians

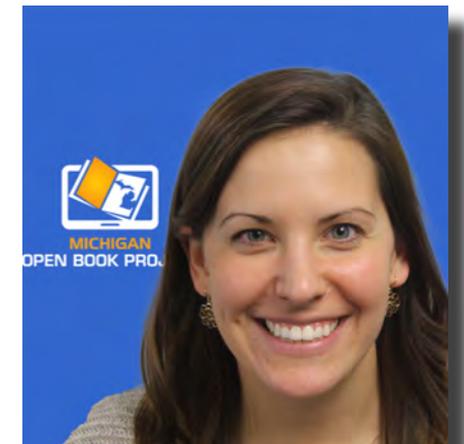
Coming from a long line of Educators, Dorothy Perry has continued to follow in this direction with passion and commitment. The culmination of 25 years in the field of Education includes, Early Childhood Education with a focus on the whole child through self-led discovery and learning. Continuing as a Family/School Liaison and supporting parents with infant/toddler development. For the past 14 years, Dorothy has concentrated on building Indigenous Education programs for youth and community, including developing Land-based cur-

Andrea Raven

Foster Elementary School

Ludington Area Public Schools

Andrea Raven currently teaches 3rd grade at Foster Elementary in Ludington, Michigan. She earned a Bachelor of Arts Degree in Elementary Education and Spanish from Albion College. While at Albion, she studied abroad in Spain. It was a positive experience that allowed her to immerse in the culture and education system. She is completing her seventh year of teaching and has taught both 5th and 3rd grades. Andrea serves as the Social Studies Department Chair at her school. She has earned her Master's Degree in Curriculum Instruction from Grand Valley State University. Outside of the education world,



**MICHIGAN
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Alison Simon

Curriculum Specialist/Grant Writer

Little Traverse Bay Band of Odawa Indians

Biography Forthcoming!



Susan Welch

**Fenton Area Public Schools
State Road Elementary**

Susan Welch currently teaches 4th grade at State Road Elementary in Fenton, Michigan. She has earned a Bachelor of Science Degree in Elementary Education from Central Michigan University and a Master's Degree in the Art of Teaching from Marygrove College with additional graduate work done at Arizona State University. While at CMU, Susan traveled to Perth in Western Australia to study their use of integration to deliver instruction and meet the curriculum standards. Upon graduation, she started her teaching career in Arizona teaching in the Casa Grande and Kyrene school districts. During this time, Susan taught in a fully inclusive elementary classroom with students with many diverse learning needs including monolingual and bilingual Spanish speaking students, as well as various physical and mental challenges. She also was able to learn about the many different Native American cultures represented within her schools. Susan has taught both 3rd and 4th grade in the Fenton Area Public Schools for the past 11 years and also serves as

Carol Bacak-Egbo

Editor

Carol Egbo has more than 40 years of experience in education as a teacher, curriculum developer, staff development specialist, and social studies consultant. She is currently a special lecturer in the Teacher Development and Educational Studies Department at Oakland University, and a contract consultant for the Oakland Intermediate School District. She has been project director for two federal Teaching American History Grants, and was the primary curriculum designer and writer for grades 2-6 of the Michigan Citizenship Collaborative Curriculum (MC3) Project. She has extensive experience in presenting professional development for teachers including summer institutes at University of California-Los Angeles, institutes for the Michigan Department of Education, teacher networks, national and state conferences, teacher seminars sponsored by Michigan State University, Saginaw Valley State University, and Oakland University. She is the recipient of numerous awards including



Carol Gersmehl

Cartographic Consultant

Carol Gersmehl is a map maker and teacher trainer. She worked in a census-data research office, then taught cartography and Geographic Information Systems for 17 years at Macalester College in St. Paul, Minnesota. In 2005, she became co-director of the New York Center for Geographic Learning and co-coordinator of the New York Geographic Alliance. While in New York, she also taught Advanced Placement World Geography and helped advise teachers at a K-12 school in Queens. She still flies back occasionally to work with schools in New York, but now she is cartographic advisor, educational materials author, and teacher-trainer for the Michigan Geographic Alliance.



**MICHIGAN
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Chapter 1

What Makes Michigan Special?

What can we use to learn about the geography of Michigan?

What natural and human characteristics are significant in Michigan?



Introduction to Michigan

QUESTIONS TO GUIDE INQUIRY

1. What can we use to learn about the geography of Michigan?
2. What natural and human characteristics are significant in Michigan?

Terms, People, and Places:

Geography: The study of how people live in and use places

Geographer: A person who studies geography

Location: Where a place is found

Map: A drawing that uses symbols to represent places and their characteristics

Thematic Map: A map that focuses on one topic, such as cities or forests or snowfall

Urban area: large city plus the smaller towns that are next to it.

Satellite image: A picture of part of the earth taken by a man-made satellite that is high above the earth (for example, 500 miles)

Peninsula: Land that is surrounded by water on three sides.

The Great Lakes: Five large fresh-water lakes located in the northern United States of America (Lake Huron, Lake Ontario, Lake Michigan, Lake Erie, and Lake Superior).



What makes Michigan special? Turn to a partner and discuss or if you are alone, type your answer here by tapping on any word twice.

What do you think makes Michigan special? You might be thinking that Michigan is special because it is your home. Maybe it is special because the people you care about live in Michigan. These are wonderful reasons. This resource will help you learn about many other ways that Michigan is special.

Interactive 1.1 Welcome to Michigan



Take a quick trip to 50 places in Michigan by watching this short video! What do you see in the video that makes Michigan special?



Michigan is two large pieces of land. Blue water of large lakes is around each piece of Michigan.

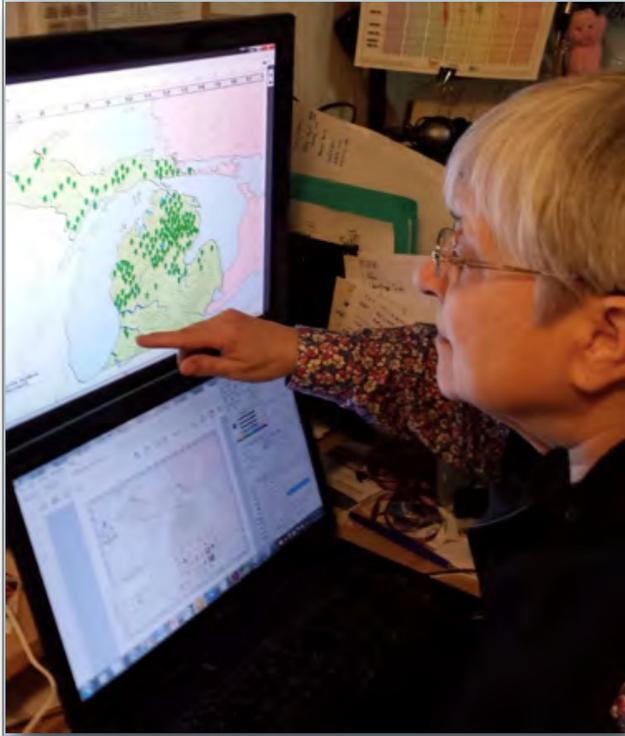
The map above shows the two pieces of Michigan. Each is a **peninsula**. A peninsula is land that is surrounded by water on three sides. The Lower Peninsula is shaped like a mitten that we might wear in winter. The Upper Peninsula is smaller and narrower.

What is Geography?

In this first chapter, you will explore the geography of Michigan. **Geography** is the study of places and the ways people live in and use places. You'll be working as a **geographer**, a person who studies geography. You'll learn that geographers ask lots of questions when they study a place! Some of these questions are:

- Where is the place? (for example, is it inside Michigan or inside a different state?)
- What is it like there? (for example, are there tall buildings or large amounts of snow?)
- How do people use places? (for example, do they build farms, stores, or factories?)
- How is a place connected to other places? (for example, by a road or along a river?)

MEET A MICHIGAN GEOGRAPHER - Carol Gersmehl

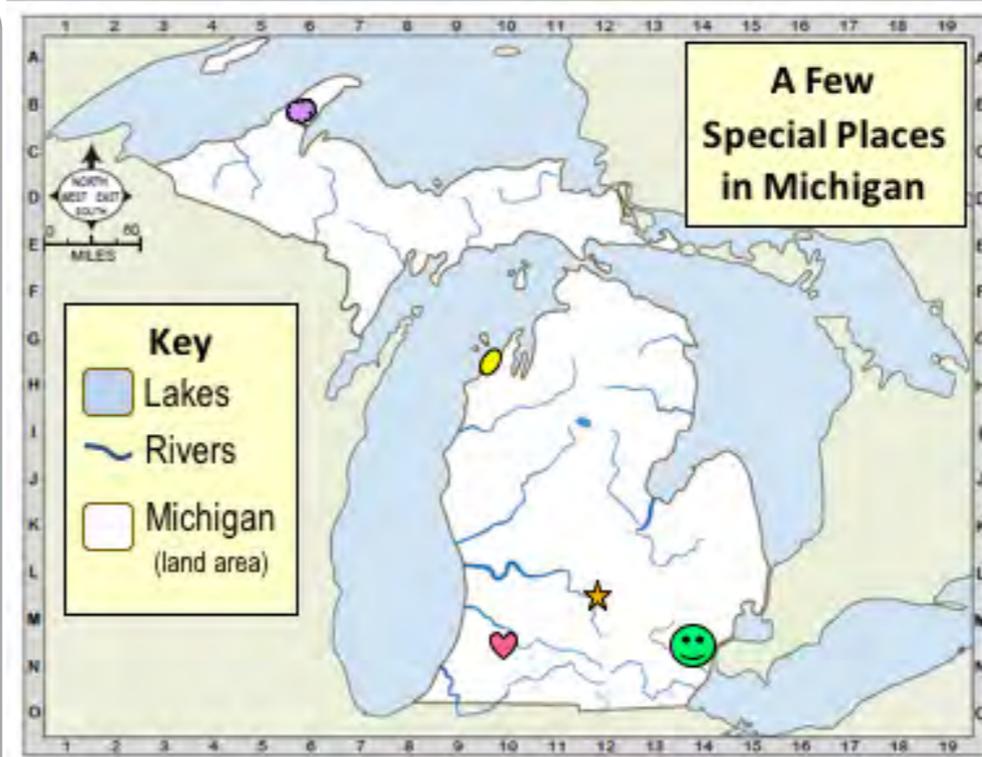


For more than 30 years, I have worked as a geographer. When I study geography, I like to use many kinds of maps. Maps are like magic carpets that lift us high above buildings and trees, so we can see much more.

Imagine flying over Michigan in an airplane. We can see so much farther from an airplane, but things below look tiny.

Geographers want to show locations correctly, so they often base their maps on photos taken from airplanes.

In the past, I drew maps on paper, but today I draw on computer screens. Each map has small symbols that represent real places that are much larger. On the map on this page, for example, I drew thin lines to show rivers that are actually many miles long. I also picked small symbols to show cities that are actually large places. Each map has a purpose, and my purpose in the map below is to show several places in Michigan that I think are special.



- Key (continued)**
-  Much snow
 -  Big sand hills
 -  Michigan's capital
 -  My home city
 -  Michigan's largest city

Do you have favorite places in Michigan?

What tools do geographers use?

Carpenters use tools! Plumbers use tools! Geographers use tools, too! Instead of building a shed or fixing a pipe, geographers use tools to help them study places. Geographers like to visit new places. The first thing they have to do is find them. They want to know the locations of places. The **location** is where a place is found. When geographers talk about the location of a place, they use often words like “next to, inside, or north of.”



What are some tools a geographer might use to find the location of a place?

Turn to a partner and discuss or if you are alone, type your answer here by double tapping:

Maps

One tool that a geographer is likely to use is a map. A **map** is a drawing that uses symbols to represent places. One main purpose of a map is to show where places are located. If you make a map of your school, you can show where your classroom is in relation to the school office or gym. A map of your town might show your home, your school, and stores, so you can see what is close to you.

The map below shows names of states. Find where Michigan is located by using two hints: Michigan touches four large lakes. Michigan is near the “top” edge of this map, in the northern part of the map.



Michigan is usually easy to locate on a map because Michigan touches four very large lakes. On the map of the United States above, find the five Great Lakes near the top (in the northern part of the map). **The Great Lakes** are large fresh-water lakes located in the northern United States. The Great Lakes make Michigan special because Michigan touches more Great Lakes than any other state in the United States! You will learn a lot about the Great Lakes in this text!

On this map, the Great Lakes are colored light blue. Michigan is colored white. Starting on the left side of Michigan, point to the names of the five Great Lakes. They are Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario. Michigan borders all of these lakes except Lake Ontario.



INTERESTING FACT: According to the Michigan Historical Society, in Michigan you are never more than 6 miles from an inland lake or more than 85 miles from one of the Great Lakes.



On this map, the Great Lakes are colored dark blue.

Michigan is colored light yellow.

Canada is colored purple.

Which of the Great Lakes are between Michigan and Canada?

On this map, which of the Great Lakes does not touch Canada.

Maps have parts that help us better understand what the map is trying to say.

- First, look for the map's title. Often, it is near the top or bottom of the map in dark letters.
Like a book title, it gives you a hint about what the map is about.
- Second, look for the map's key. Like a door key, the map key opens up the meanings of symbols.
- Third, see if the map has a compass rose.



A compass rose tells you what direction is north on the map.

Often, a compass rose will also show the directions of south, east, and west.

Interactive 1.2 Practice Using a Map



[Click here to practice using parts of a map.](#)

Interactive 1.3 Digging Deeper - Map Scale



Often maps have a scale on them. [Click here to learn more about this.](#)

Thematic Maps

Thematic maps are maps that focus on one thing, such as cities or forests or snowfall. By focusing on one thing, we can see where there is more of the topic or where it is most likely to be located. For example, on a snowfall map you can see the areas where there is the most snow.

On this and the next page are two maps about Michigan that focus on where people live inside Michigan.



The first map uses “smiley face” symbols to show where the five largest urban areas are located. An **urban area** is a large city plus the smaller towns that are next to it.

The largest symbol shows the Detroit urban area. Smaller symbols show four other large urban areas. Here are the numbers of people who lived in the five largest urban areas in Michigan in 2012:

Detroit:	5,318,000
Grand Rapids:	1,379,000
Lansing:	534,000
Kalamazoo:	524,030
Saginaw:	391,000

What do you learn about where people live from this map?

Are the largest urban areas in the Upper Peninsula?

Are the largest urban areas in the Lower Peninsula?

Thematic maps can focus on other topics, for example, where things grow inside Michigan.



On the map above, find the symbols in the map key.

The dark green tree symbols represent pine forests that were important in the early history of Michigan.

The yellow and green corn symbols represent places where corn is most likely to grow today in Michigan.

Where were Michigan's pine forests located in the past?
Which parts of Michigan had few pine trees?

Where is most of the corn grown in Michigan? Does the Upper Peninsula have much corn?

Distribution of Black Bear in Michigan

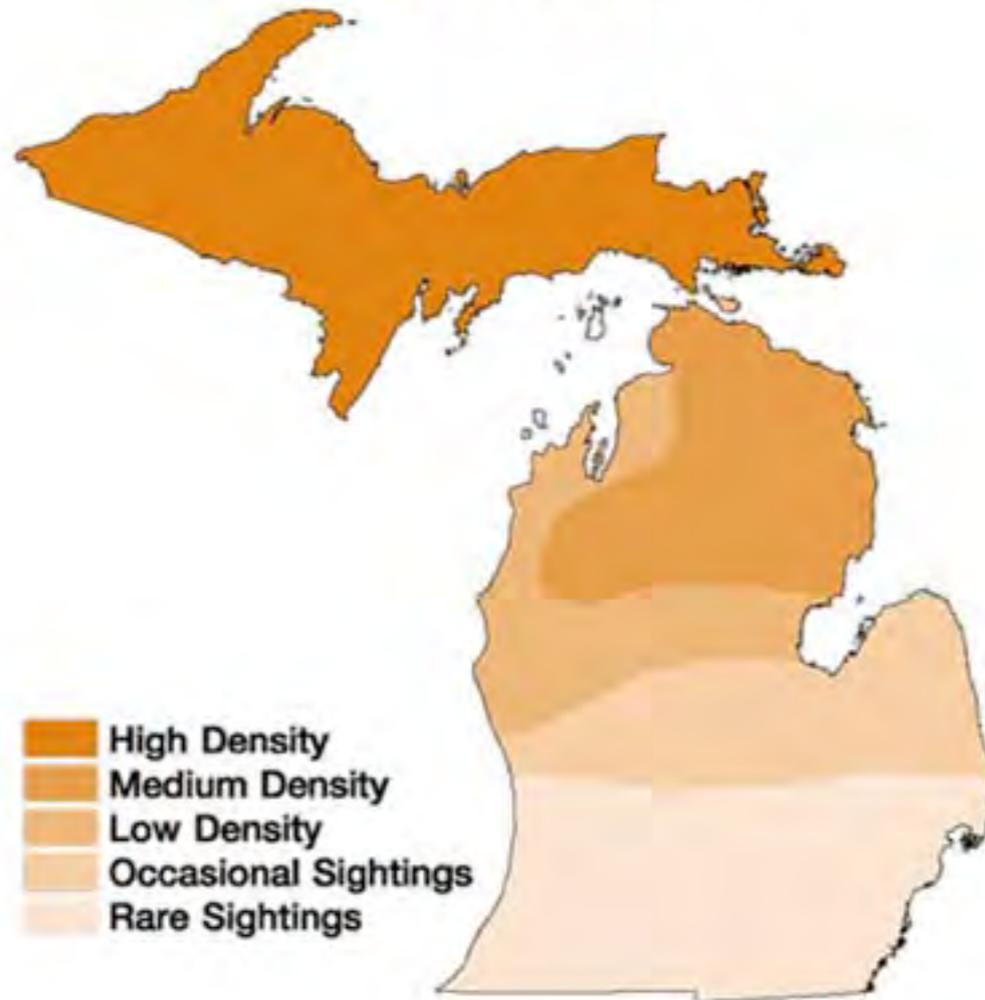


Image source: <http://www.covebear.com/michiganbearmap400.jpg>

Above you can see a fun map about bears in Michigan. Be sure to look at the map key. In this map about bears, the darkest color means there are more bears. Where are there many bears?

Where are there few bears in Michigan?

Satellite Images

Geographers have used maps for a long, long time. Over time they have added some new tools to their toolboxes! The United States government provides **satellite images**. These images are recorded by satellites that circle the Earth every day. They are hundreds of miles above the earth.

Interactive 1.4 North American Snowfall



NASA (the government agency that studies space) has made a movie that shows what its satellites see as seasons change from winter to summer. You see change through the months of several years. As you watch the movie, be sure to look for the Great Lakes!



How did the satellite images in the movie show the Earth differently from a map? Turn to a partner and discuss, or if you are alone type your answer here:

Look at a NASA satellite image that shows Michigan in September, 2003 (near the end of summer).



Think about these questions:

SEE - What exactly do you see with your eyes?

THINK - What do you think this image shows?

WONDER - What questions are you asking yourself when you look at this image?

Type your ideas here or create a chart on a separate sheet of paper like the one below.

Now look at this NASA satellite image of Michigan



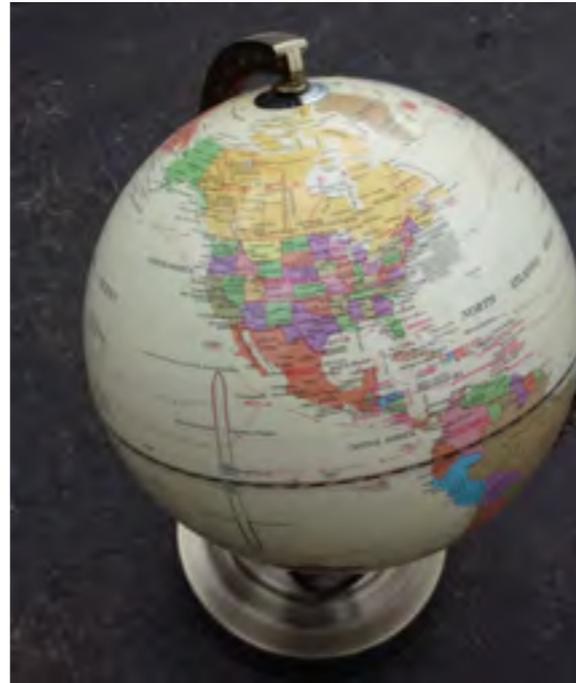
<p><u>I See</u></p> 	<p><u>I Think</u></p> 	<p><u>I Wonder</u></p> 
--	--	---

You probably guessed that the second image shows Michigan in winter. These two images show how satellite images can help a geographer study a place during different times of the year.

Globes

Another tool used by geographers to learn about the location of a place is a globe. Does your classroom have a globe?

A globe is a model of the Earth shaped like a sphere. This means it is shaped like a basketball.



Because the Earth is round and not flat, a sphere is a much better model of the Earth than a map. In fact, it is impossible to make an accurate flat map of our round Earth! You can get an idea of

how hard it is to change from a sphere to a flat map if you try to peel a grapefruit. If you try to flatten the grapefruit skin, there will be several rips. So why do people use maps more often than globes? Globes are expensive and hard to carry around, so flat maps are used most often.



Why is a globe shaped like a sphere? Turn to a partner and discuss, or if you are alone type your answer here:

Interactive 1.5 The Earth in 3D



*View a globe in this short video.
Make sure to watch for Michigan!*

Putting it all together

Geographers use tools like maps, globes and satellite images to study places. They also ask questions such as “Where are these places?” and “What is it like there?” You will use these geographer’s tools and questions to study Michigan. You’ll also be trying to answer the big question: What makes Michigan special?



Writing Assignment: Make a list of questions you would like to ask a geographer

Where is Michigan Located?

QUESTIONS TO GUIDE INQUIRY

1. What can we use to learn about the geography of Michigan?
2. What natural and human characteristics are significant in Michigan?

Terms, People, and Places:

state - one of the 50 parts of our country

government - a group of elected citizens who make and carry out the laws for a community, state or country.

border - the place where one area ends and another begins

region - an area of land that has common characteristics.

continent – one of seven very large land masses on Earth

Why is location important?

In the last section you learned that geographers study places by asking questions about them. You also learned that one of the first questions they ask is: Where is it?



Why do you think geographers often begin to study a place by finding out its location, or where it is? Turn to a partner and discuss or, if you are alone, type your answer here.

If we know locations, we also know how close or far away important places are. You live in Michigan. Remember that you learned earlier that Michigan is next to the Great Lakes. Imagine that your grandmother lives in Florida and your aunt lives in Indiana.



Source: https://commons.wikimedia.org/wiki/Atlas_of_the_United_States#/media/File:US_map_-_states.png

Attribution: By US Department of Interior

On the map above, the mapmaker wrote “Me” in Michigan. “Aunt” in Indiana, and “Grandmother” in Florida.

Who lives closer to Michigan? Who has to travel more miles to visit you in Michigan?

Knowing where a place is located can be a starting point for answering other important questions:

- How close are places to where I live?
- How is a place connected to other places?

What is a state?

As a young student you learned that you live in the **state** of Michigan. You may not have learned much about what a state is! A state is one of the 50 parts of our country. Each state has its own **government** that makes laws for the state. However, each state is also part of the United States of America. In this section you will use several maps of the United States to show where the state of Michigan is located.

Where is Michigan?

One way to describe the location of Michigan is by saying “Michigan is inside the United States.” In the map on the next page, the United States is colored white, and it has many pieces (states). There are pink dots in the state of Michigan to make it stand out. (Michigan is inside the United States. It is not inside Canada and not inside Mexico.)

However, our country is very big. How could you help someone have a clearer picture of where Michigan is located? Look at the

map below. How could you use a compass rose to describe where Michigan is in the United States? (Remember, Michigan is filled with pink dots on this map.)



Source: https://commons.wikimedia.org/wiki/Atlas_of_the_United_States#/media/File:US_map_-_states_and_capitals.png

Attribution: Public Domain, <https://commons.wikimedia.org/w/index.php?curid=12999>

There is another way to describe Michigan's location. You could list states that share borders with Michigan. A **border** is the place where one area ends and another begins. NOTE: Canada (colored orange) is a different country. The dark line with dots and dashes shows the border between Canada and the United States.



Source: https://commons.wikimedia.org/wiki/Atlas_of_the_United_States#/media/File:US_map_-_states.png

- 1) Which states are next to Michigan?
- 2) Which states touch Michigan's land borders?
- 3) Which states share a Great Lake with Michigan?
 - Which states share Lake Superior with Michigan?
 - Which states share Lake Michigan with Michigan?

You now have several answers to the question: Where is Michigan?

- Michigan is next to four Great Lakes.
- Michigan is a part of the United States. It is inside the United States.
- Michigan is in the northern part of the United States.
- Michigan borders the land of three states: Wisconsin, Indiana and Ohio.
- Michigan also borders Illinois and Minnesota across borders that run through Great Lakes.

But, you are not done yet! There are still more ways to describe the location of our state.

Interactive 1.6 Find Michigan



Use this interactive to practice finding Michigan on a map of the United States

Using More Maps to Describe the Location of Michigan

Because the U.S. is such a big country, geographers put several states together in a group, or region. Geographers have a reason for grouping several states together into a region. A **region** is an area of land that has common characteristics.

Look at the map below. It shows a region of the United States (U.S.) that includes Michigan. How are the states in this region similar? What do they have in common?



Source: https://commons.wikimedia.org/wiki/File:Map_of_USA_highlighting_Great_Lakes_region.png

Attribution: By en>User:Grendelkhan - Made from en:Image:Map of USA.png., CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=2319479>

You probably figured out that all of the states in this region border the Great Lakes. That is why this region of our country is called “The Great Lakes Region.” You could use this as another way to describe the location of Michigan. You could say that Michigan is in the Great Lakes region of the United States.

What if you wanted to think even bigger than the United States? What’s bigger than a country but smaller than the world? That sounds like a geography riddle! These maps can help you solve the riddle!

Movie 1.1 Geography Riddle

What if you wanted to think even bigger than the United States? What’s bigger than a country but smaller than the world?



United States of America



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When you think you have the answer click on the embedded movie above to see if you’re correct!

As you saw on the map in the interactive, Michigan is part of the **continent** of North America. A continent is one of seven very large land masses on Earth. The map below shows all the continents. North America is circled on the map. Find the Great Lakes inside North America.



So far in Chapter 1, you have used several different words to name places: state names (Michigan), country names (United States), and continent name (North America). Click here for an activity showing how these terms fit together:

PUTTING IT ALL TOGETHER

You have learned many different ways to answer the question: Where is Michigan? Now it's time to move on to another important question: What is Michigan like?

Interactive 1.7 Where is Michigan?

Word Bank
State
Country
Continent
World

Review how we talk about Michigan being inside areas that are bigger. Our state is inside our country which is inside a continent which is inside the world.

Write the words (state, country, continent, world) inside the correct boxes.

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Where is Michigan located? What are three different ways you could answer this question? Turn to a partner and discuss or if you are alone, type your answer here.

What are the Important Natural Characteristics of Michigan?

QUESTIONS TO GUIDE INQUIRY

1. What can we use to learn about the geography of Michigan?
2. What natural and human characteristics are significant in Michigan?

Terms, People, and Places:

natural characteristics – parts of a place that were not made by people

human characteristics – parts of a place that were made by people

landform - different kinds of land on the Earth

island – a piece of land that is surrounded by water on all sides

elevation – how high a place is

mountain range – a group of connected mountains

sand dunes - ridges or hills of loose sand piled up by the wind

bay – a body of water that is partly blocked off by land

INVESTIGATING WHAT A PLACE IS LIKE

Now that you can describe where Michigan is located, the next question on your geography journey is, “what is it like there?” In order to answer that question about a place, geographers investigate its natural and human characteristics. **Natural characteristics** are the parts of a place that were not made by people. Examples would be a river, a forest and a lake. **Human characteristics** are the parts of a place that were made by people. Examples would be a road, a building and a sidewalk. In this section you will learn about important natural characteristics of Michigan.



Think about your own community. What are its important natural characteristics? Turn to a partner and discuss or if you are alone, type your answer here.

LANDFORMS

Land is an important natural characteristic. There are many different **landforms**, or kinds of land, on Earth. In second grade you probably learned about hills, mountains, plains and valleys. What are the important landforms of Michigan? Keep reading to find out!

Peninsulas

As you learned in the first two sections, Michigan is made up of two big peninsulas. That makes our state unique, or very special! The peninsula in the north is called the Upper Peninsula. The one to the south is called the Lower Peninsula. But, look at this Michigan map. Are there just two peninsulas in Michigan?



Interactive 1.8 Peninsulas



If you looked closely at the map you probably figured out that Michigan has a lot of peninsulas! Click here to see some of their names.

Islands

Can you believe that Michigan has 500 islands that belong to it? An **island** is a piece of land that is completely surrounded by water. Michigan's largest island is called Isle Royale. Find it in the most northern part of the map on this page. It is located in Lake Superior which is the largest fresh water lake in the world. It is a beautiful wilderness with a long history. People have used the natural characteristics of Isle Royale. Over 4000 years ago people mined copper on the island. Later they had fishing camps there.

There are no roads and no cars on the island. No one lives there year around. Between April and October people visit the island. They come to hike its many trails and enjoy its natural beauty. Isle Royale and the 450 little islands that surround it make up Isle Royale National Park, Michigan's only National Park. This chain of islands is over 45 miles long.

Interactive 1.9 Isle Royale Webcams



Do you want to see what's happening on Isle Royale right now??? Click here to view one of their webcams set up on the island

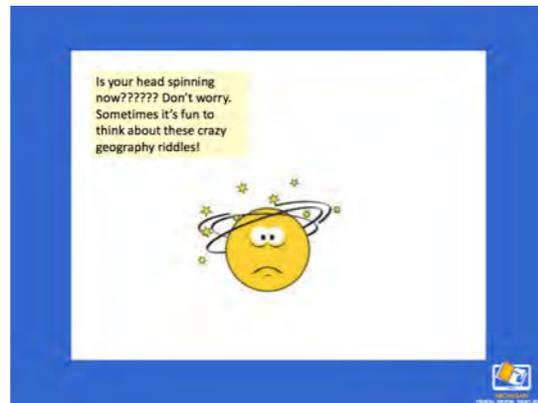


Here's another geography riddle: Can you have an island on an island? What would an island have to have in order to have an island on it? Turn to a partner and discuss or if you are alone, type your answer here.



INTERESTING FACT: How did the Porcupine Mountains get that name??? Did a whole bunch of porcupines live there? Not really! The area gets its name from its tree-covered mountaintops. Their shape looks like a quill-covered porcupine!

Interactive 1.10 Islands on Lakes on Islands



Mountains

People don't often think of Michigan as having mountains, but it does have places with high **elevations!** The highest point in Michigan Mount Arvon. It stands about 2,000 feet high. If your school has one story (floor) to it, that would be about as high as stacking 200 of your schools on top of each other! This mountain is part of a **mountain range** called the Huron Mountains. A mountain range is a group of connected mountains. The Porcupine Mountains are another mountain range in Michigan.

Interactive 1.11 Porcupine Mountains



See how the Porcupine Mountain region changes through the seasons by visiting this photo gallery.

Sand Dunes

Sand dunes are a very special landform of Michigan. They are hills or ridges of loose sand piled up from the wind. Most are found along the coastlines of Lake Michigan. The Sleeping Bear Dunes are the largest dunes in Michigan covering 50,000 acres along Lake Michigan.



Sleeping Bear Dunes National Lakeshore - www.ToddandBradReed.com



Silver Lake Sand Dunes – “Sculpted Dunes”
www.ToddandBradReed.com



Look at this map. It shows the location of the Sleeping Bear dunes. What Great Lake are these dunes next to?

Interactive 1.12 Sleeping Bear Dunes Tour



Take a Virtual Tour of Sleeping Bear Dunes National Lakeshore by clicking here:

BODIES OF WATER

Water is another important natural characteristic. It has been a very important factor in Michigan's history and growth. In fact, one of Michigan's nicknames is "Water Wonderland!"

The Great Lakes

Two of Michigan's nicknames are "The Great Lakes State" and "Water Wonderland." Both of these names show the importance

of water to the state. The Great Lakes are a series of connected freshwater lakes that surround Michigan. The names of the Great Lakes are: Lake Huron, Lake Ontario (the only lake that does not border Michigan), Lake Michigan, Lake Erie, and Lake Superior, the largest of the Great Lakes. A way to remember the names of the lakes is to use the word H.O.M.E.S. Now, see if you can label the Great Lakes correctly!

Interactive 1.13 Label the Great Lakes



The image shows an interactive map of the Great Lakes region. The map is on a light yellow background and shows the outlines of Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario. To the right of the map is a blue vertical panel containing five white rectangular boxes with green borders. Each box contains the name of a lake and a yellow arrow pointing to the right. The boxes are labeled A through E from top to bottom.

Lake Michigan	A
Lake Huron	B
Lake Superior	C
Lake Ontario	D
Lake Erie	E

Click on this interactive to see if you can label the Great Lakes correctly!



INTERESTING FACT: In 1954 the phrase “Water Wonderland” was added to Michigan license plates. In 1965 this phrase was replaced by “Water-Winter Wonderland.” In 1968 this was changed to “Great Lake State”

Inland Lakes

Inside Michigan there are more than 11,000 lakes. They are all smaller than the Great Lakes. The largest inland lake is Houghton Lake. It is located in the northern part of the Lower Peninsula.



What would be some benefits of living close to a lake? What might be some challenges?



Source: https://upload.wikimedia.org/wikipedia/en/0/06/Houghton_Lake_1.jpg

Rivers

Rivers are flowing bodies of water that carry the water into a large lake, sea, or ocean. Michigan's largest rivers all empty into one of the Great Lakes. Michigan has more than 49,000 miles of rivers. The longest river is the Grand River. This river is about 260 miles long. People have built large cities (Lansing and Grand Rapids) along the Grand River. The Escanaba River is the longest river in the Upper Peninsula. Is there a river close to your community?

Use these two maps to learn more about rivers in Michigan.



Find the thicker part of the river labeled with a 1 on the first map. The thickest part of the river is where the river ends when it flows into a larger body of water. What do the rivers shown on this map flow into?

On the map that shows elevation, find the river labeled with a 1. The thinnest part of the river is where it begins. Notice that all of the rivers begin in higher elevation (darker brown or orange colors). They end in lower elevation (yellow color). Rivers flow from higher ground to lower ground.



Upper Carp River - Porcupine Mountains

Source: www.ToddandBradReed.com

Waterfalls

Waterfalls are formed when water in a river drops downward steeply. Most of Michigan's waterfalls are found in the Upper Peninsula.

The largest waterfall in Michigan is the Upper Tahquamenon Falls. It is nearly 50 feet high and more than 200 feet across. It is located in a State Park that also includes the Lower Tahquamenon Falls.

The falling water shown in the photo is much more powerful than a bathroom shower!



Tahquamenon Falls in Winter (photo: Carol Egbo)

Interactive 1.14 Tahquamenon Falls



Visit Tahquamenon Falls in this video!

Bays

Bays are bodies of water that are partly enclosed by land. Many early towns in Michigan were located on bays. Why do you think that people would want to settle near a bay? Why do you think a bay would be a good place to park a boat during windy or stormy weather?

One important bay is Saginaw Bay which is located near the “Thumb” region of Michigan. Another important bay, Grand Traverse Bay, is located in the northwest part of the Lower Peninsula. The map shows these two large bays. Can you find other small bays in the Upper Peninsula?



PUTTING IT ALL TOGETHER

You have learned about many landforms and bodies of water important in Michigan. They make Michigan special!



Writing Assignment: Choose one of the natural characteristics you have learned about in this section... maybe a waterfall, or a sand dune or Lake Superior. Write a short paragraph describing it.

Section 4

What are the Important Natural Characteristics of Michigan - Vegetation and Climate

QUESTIONS TO GUIDE INQUIRY

1. What can we use to learn about the geography of Michigan?
2. What natural and human characteristics are significant in Michigan?

Terms, People, and Places:

natural characteristics – parts of a place that were not made by people

vegetation – another word for plants

orchard – a piece of land planted with fruit trees

ancestors – family members from long, long ago

Indigenous people - the first people in a place

environment – natural parts of the land and also human-made things that are in a place

climate – weather over a long period of time

lake effect – ways in which the Great Lakes effect the climate of Michigan

You have learned a lot about important Michigan landforms and bodies of water. There are still more natural characteristics to explore! In this section you will learn about two of them.

VEGETATION

When they are studying a place geographers often investigate the **vegetation** of the place. This is just another word for plants!



What plants are important in Michigan? Work with a partner to make a list or if you are alone type your list here.

Forests

Forests have always been important to Michigan. Long ago nearly all of the land was covered in forests. Over time people cleared the land to build homes and grow crops. As more and more people came to settle in Michigan, they cut down more trees and even sold the wood to far-away places. Today, only about half of Michigan's land is covered in forests. Although our forests have changed over time, they are still very special to Michigan. You will learn more about forests later in this book.



Photo courtesy of Chris McCauley.

Fruit Trees

Orchards, or pieces of land planted with fruit trees, have been important in Michigan for many, many years. Early pioneer farmers often planted an orchard on their farms. Why do you think they did this?

Over time sections of Michigan have become famous for their fruit orchards. The area near the town of Romeo in Macomb

County is famous for its peaches. This is also true of Berrien County in southwestern Michigan. The areas around Traverse City and the Leelanau Peninsula are famous for their cherry orchards.

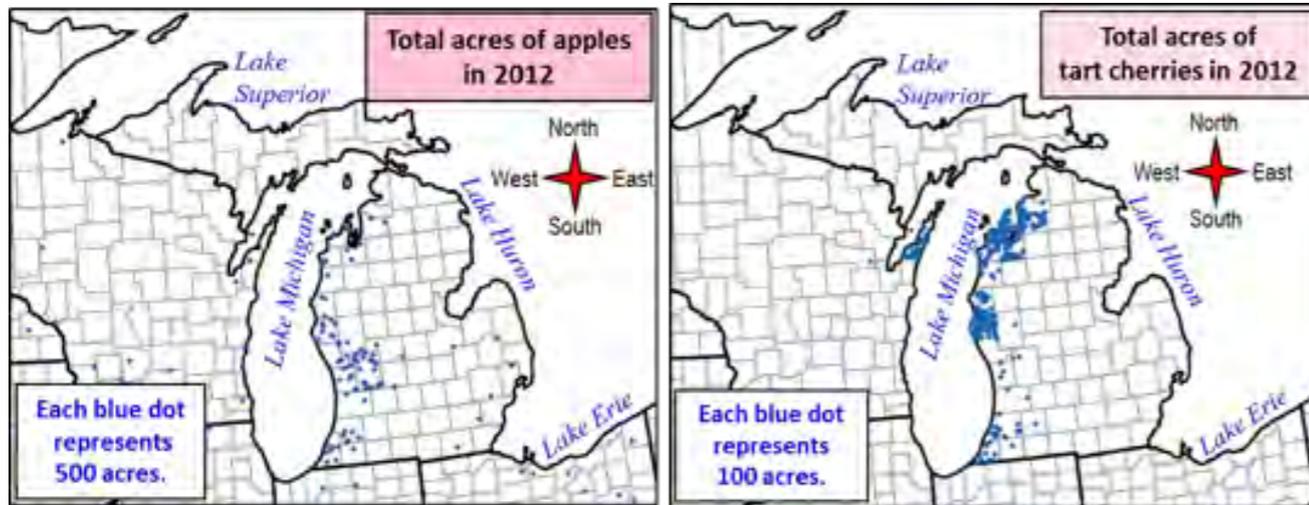


Grand Traverse Bay, Old Mission Peninsula - Traverse City

www.ToddandBradReed.com

The maps below show where two kinds of orchards are located in Michigan.

The blue dots on the maps represent land covered by apple orchards and by tart cherry orchards. On which side of Michigan do you find most of the blue dots? Which Great Lake are most of the orchards close to?



Source: U.S. Department of Agriculture, http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Ag_Atlas_Maps/Crops_and_Plants/

The Department of Agriculture made these maps. It asks farmers how much land they have planted in apple or cherry orchards. (An “acre” of land is about the size of a football field.)

Other Vegetation

Michigan has many, many kinds of plants. Some only grow near Michigan’s beaches. Some grow in wetlands. Some grow in the deep forests. Some like wild blackberries and raspberries are a wonderful treat!

Gallery 1.1 More Vegetation in Michigan



Pitcher Plants grow near wetlands

(Photo: Carol Egbo)



Using Plants to Tell Time

Plants are very important to **Indigenous people** of Michigan. Indigenous people means the first people in a place. They have special ties and rights to the place. In the United States sometimes these people are called American Indians or Native Americans. They did not use calendars or clocks to tell time like many people do now. Instead, they relied on their natural **environment**. They knew their environment really well because they learned about it from their **ancestors**. Ancestors are family members from long, long ago. Knowing about plants and animals helped Indigenous people tell time. They knew how the animals acted during different parts of the day and year. They also knew about how plants grew during different times of the year.

Indigenous people paid special attention to the moon, and used it as their calendar to know what month it was. Each month, or moon, had a special name. Depending on where you lived, the month might have a different name. For example, June is called “odemin geezis” or Strawberry moon. It’s called strawberry moon because that is when the strawberries are ripe to harvest. This term is from the Anishinaabemowin language. It is spoken by communities of the Anishinaabe Nation, one of the first groups in the Great Lakes region. Different communities in different areas had different names for moons, depending on the resources in their area. In Minnesota, August is called “wild rice moon”. May is called “flower moon”. Plants help tell time.



Source: https://commons.wikimedia.org/wiki/File:Fragaria_vesca_2.jpg

Climate

Another important natural characteristic of Michigan that geographers study is climate. People often mix up climate and weather. They are connected but different. **Climate** is weather over a long period of time.

Four Seasons

Michigan's climate has four seasons: summer, fall, winter, and spring. Look at the pictures and study the similarities and differences between seasons. What do people have to do to adapt to each season? Do they change the clothes they wear?



Long Lost Trail. Ludington State Park.

www.ToddandBradReed.com

Lake Effect

The Great Lakes have an impact on the climate of Michigan. For example, places next to the Great Lakes receive the largest amounts of snowfall in winter. On the map below, find the “**lake effect**” snow (places that get the most snow). The map shows the greatest snowfall places by putting snowflake symbols closest together. The whitest places get more than 10 feet of snow in winter. The places where the snowflake symbols are not as close together get more than 6 feet of snow in winter. On the map, find places where winds blow from a Great Lake and cause heavy snow over the nearby land. In science you will probably learn

Interactive 1.15 Lake Effect Snow



Click here to see an explanation of lake effect snow.



Results of Lake-Effect Snow

Ludington Lighthouse

www.ToddandBradReed.com



more about what causes the “lake effect.”

Our State Symbols

In Section 1 you learned that a map key has symbols. These represent places on a map. A squiggly line might represent a river. States have symbols also! These are things that represent a state. They are often natural characteristics of a state. For example, Michigan’s state flower is the apple blossom. Michigan’s state tree is the white pine. These symbols represent very important kinds of vegetation in Michigan.

Click [here to read](#) more about Michigan’s state symbols.

Click [here to learn](#) about the symbols of other states.

PUTTING IT ALL TOGETHER

You have learned about many important natural characteristics of Michigan. You have learned about landforms, bodies of water, vegetation and climate. They make Michigan special! As you read on you will learn how people have used these natural

Interactive 1.16 State Symbols



Click [here](#) to try a matching game of Michigan symbols.

characteristics. You will also learn how people have been affected by them.

ACTIVITY: Use the Google Doc link or make a chart like the one below on a separate piece of paper. Choose three natural characteristics of Michigan that you have learned about. Explain why each makes Michigan special.

Natural Characteristic	Why does it make Michigan special?

Interactive 1.17 Google Docs - Michigan Characteristics



Why are the Great Lakes Great?

QUESTIONS TO GUIDE INQUIRY

1. What can we use to learn about the geography of Michigan?
2. What natural and human characteristics are significant in Michigan?

Terms, People, and Places:

recreation – activities done for fun when you are not working

movement - a theme of geography that explains how and why people, goods and ideas move

transportation - ways of moving things and people from one place to another

freighter - a large boat used for carrying cargo

port - a city next to a body of water where ships load and unload

pollution – harmful things put into the environment

You have already learned some important things about the Great Lakes. Did you stop to wonder why they are called “Great?” One reason is that they make up the largest freshwater supply in the world. In fact, one fifth of the world’s fresh water comes from the Great Lakes. That is around six quadrillion gallons of water! That number looks like this: 6,000,000,000,000,000 !!!! Lake Superior itself has 3 quadrillion gallons of water. That is enough to flood all of North and South America to a depth of one foot!

It is not just the amount of water that makes the Great Lakes great. In this section you will learn many more reasons. But first take a look at some Great Lakes Facts.

Interactive 1.18 How Big is a Quadrillion?



A Quadrillion is a very large number! Lets explore what it really means to have a Quadrillion gallons of water!

Interactive 1.19 Great Lakes Facts



Learn a little more about the Great Lakes in this widget!

The Great Lakes and Indigenous People

The Great Lakes have always been very, very important to the Indigenous people of Michigan. You have learned that Indigenous people means the first people in a place. Indigenous people used the Great Lakes to move from place to place in the region. They built communities along their shores. They fished their waters. Many Indigenous people still live in these areas and fish these same waters today.

A video featuring the Little Traverse Bay Band of Odawa Indians Eric Hemenway was not available at the first release. This will be updated to include this video here in the fall.

Recreation and the Great Lakes

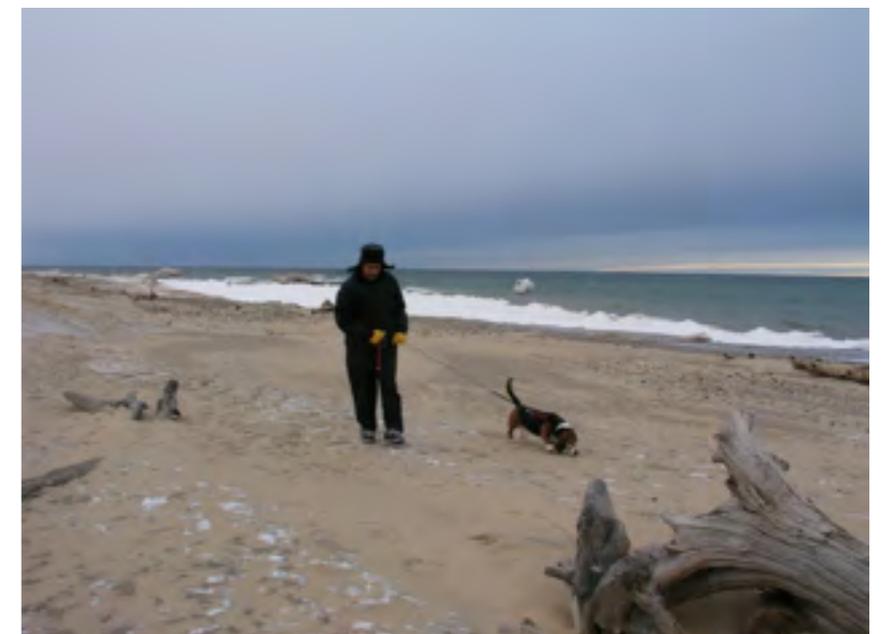
Many people use the Great Lakes for recreation. **Recreation** means activities done for fun when you are not working. People enjoy spending time at Great Lakes beaches. Some people go fishing in the Great Lakes. Some people go boating. Others go diving. Most people would agree that one reason the Great Lakes

are great is because they are fun! If you had the choice, what type of Great Lakes recreation would you choose?



There are lots of ways to have fun in the Great Lakes.

(Photo: Carol Egbo)



You can enjoy Great Lakes beaches even in winter! 41

(Photo: Carol Egbo)

Transportation and the Great Lakes

The Great Lakes have always been important to Michigan for transportation. **Transportation** means ways of moving things and people from one place to another. This has been true from the canoes of Indigenous people to the huge **freighters** that carry goods now.



The Great Republic, near Port Huron, Michigan. Notice the sky! The Great Lakes can whip up a storm very quickly!

(Photo: Carol Egbo)

Great Lakes freighters pick up and drop off goods at Michigan ports. A **port** is a city next to a body of water where ships load and unload. Many of these ports are some of the oldest cities in Michigan.



INTERESTING FACT: One large Great Lakes freighter can carry as much as 3000 large trucks!



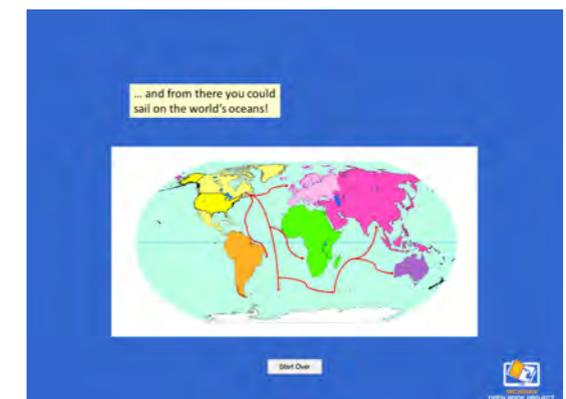
Source: <https://upload.wikimedia.org/wikipedia/commons/d/dd/AMAnderson.jpg>

Interactive 1.20 Great Lakes Ports



Learn more about the ports on the Great Lakes on this website.

Interactive 1.21 The St. Lawrence River



Learn how the Great Lakes connect Michigan to the rest of the world!

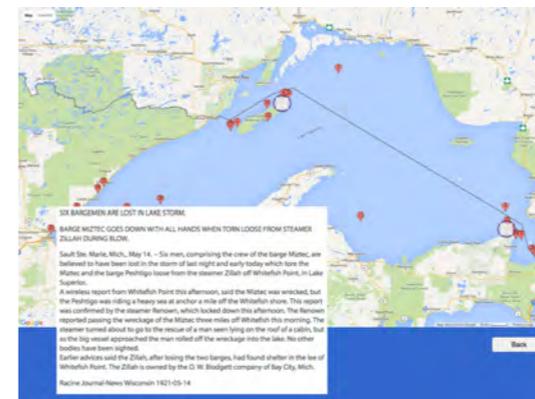


INTERESTING FACT: It takes a Great Lakes freighter about 7 to 8 days to travel from Duluth Minnesota to the Atlantic Ocean

Shipwrecks and the Great Lakes

The five Great Lakes are a valuable resource. But sailing them can be dangerous. Because of this there have been many shipwrecks on the Great Lakes.

Interactive 1.22 Great Lakes Shipwrecks Mapped



See many of the great lakes shipwrecks on these maps, and learn about eight more of them!

Interactive 1.23 The Wreck of the Edmund Fitzgerald



Learn more in this music video!

Pollution and the Great Lakes

Pollution in the Great Lakes has been a problem at times.

Pollution happens when harmful things are put into the environment.

Lake Erie has had the biggest problems with pollution. It is the shallowest of all the Great Lakes, and its shores are lined with factories and farms.



Two men on a small boat on Lake Erie in 1976. Both the boat and the men are covered in oil polluting Lake Erie

Image courtesy of Cleveland State University Library Division of Special Collections.

Source: <http://neorsd.blogspot.com/2014/06/history-45-years-ago-dying-river-saved.html>

“The Lorax” is a famous book by Dr. Seuss about what happens when people don’t take care of the environment.

When “The Lorax” by Dr. Seuss was published in 1971, there was an original line in the book that talked about Lake Erie. It was a part of the book that was describing how pollution was affecting fish.

*No more can they hum, for their gills are all gummed.
So, I’m sending them off. Oh, their future is dreary.
They’ll walk on their fins and get woefully weary
in search of some water that isn’t so smeary.
I hear things are just as bad up in Lake Erie.
Source: The Lorax, by Dr. Seuss*

For a long time, employees of the Ohio Sea Grant worked really hard with the communities around Lake Erie to help clean up the pollution. Fourteen years after the book was published, they wrote to Dr. Seuss. They told him about how they had worked to make Lake Erie healthy again. Dr. Seuss updated his story, and he took out the line about Lake Erie!

PUTTING IT ALL TOGETHER

The Great Lakes offer many things to many people. They provide recreation and transportation. They provide fish and scenic beauty. They are powerful and their might has taken down many ships. They are truly one of Michigan's treasures. They make Michigan special! That is why it is so important to work to keep them clean free from pollution.



Writing Assignment: Write a short letter to the Great Lakes telling them why you think they are great.

Michigan's Human Characteristics

QUESTIONS TO GUIDE INQUIRY

1. What can we use to learn about the geography of Michigan?
2. What natural and human characteristics are significant in Michigan?

Terms, People, and Places:

Lighthouse - a tall building with a light on top used to guide ships

Ferry - a boat that cars and people can ride on

Rapids – a fast-moving part of a river where a river flows steeply down

Lock - a place where boats can be raised up or lowered

You have learned that Michigan has many special natural characteristics. The Great Lakes, sand dunes and waterfalls are some of these. Remember, geographers also study the human characteristics of a place. Human characteristics are the parts of a place made by people. Study the picture below. What natural characteristics do you see? What human characteristics do you see?



Pointe Aux Barques Lighthouse

(Photo: Carol Egbo)

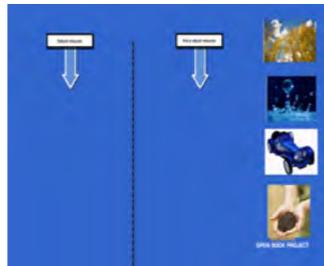
Roads, schools, and cities are all human characteristics. In the picture, the lighthouse, sidewalks and electric poles are all human characteristics. They were made by people. Think back to 2nd grade. What human characteristics are in your town?



Write about or draw a human characteristic that is in your community.

Knowing the difference between natural and human characteristics is an important skill for a geographer. Let's practice.

Interactive 1.24 Natural Resources



Can you tell the difference?

Lighthouses

In the last section you learned some of the reasons the Great Lakes are important to Michigan. They are used for travel, for

moving goods and for fun. You know from reading about shipwrecks that the Great Lakes are also very dangerous.

People built lighthouses to make the lakes safer. **Lighthouses** are tall buildings that have a light on the top. The light at the top warns ships to stay away from dangerous rocks that are near the lighthouse. The lights are used to guide ships into water that is deep and safe. The lights are especially helpful at night or during foggy weather.

Gallery 1.2 Lighthouses



Round Island Lighthouse in Lake near Mackinac Island

(Photo: Carol Egbo)



Interactive 1.25 Michigan Lighthouses



Michigan has more lighthouses than any other state. Look at the map of Michigan's lighthouses. Where are the lighthouses located? Are the lighthouses in the middle of Michigan? Are they far from the Great Lakes?



Source: https://www.google.com/maps/d/u/0/viewer?t=p&oe=UTF8&msa=0&ie=UTF8&mid=z8zq_hVEs0JA.kmfq3mUIYflo

The lighthouses are all along Michigan's shores. The lighthouses form a mitten pattern around the Lower Peninsula. They are also located around the land of the Upper Peninsula. They help ships to keep from crashing into the land. Lighthouses are a special human characteristic of Michigan. If we didn't have them, sailing ships in our waters would not be as safe.

Interactive 1.26 St Joseph Lighthouse Cam

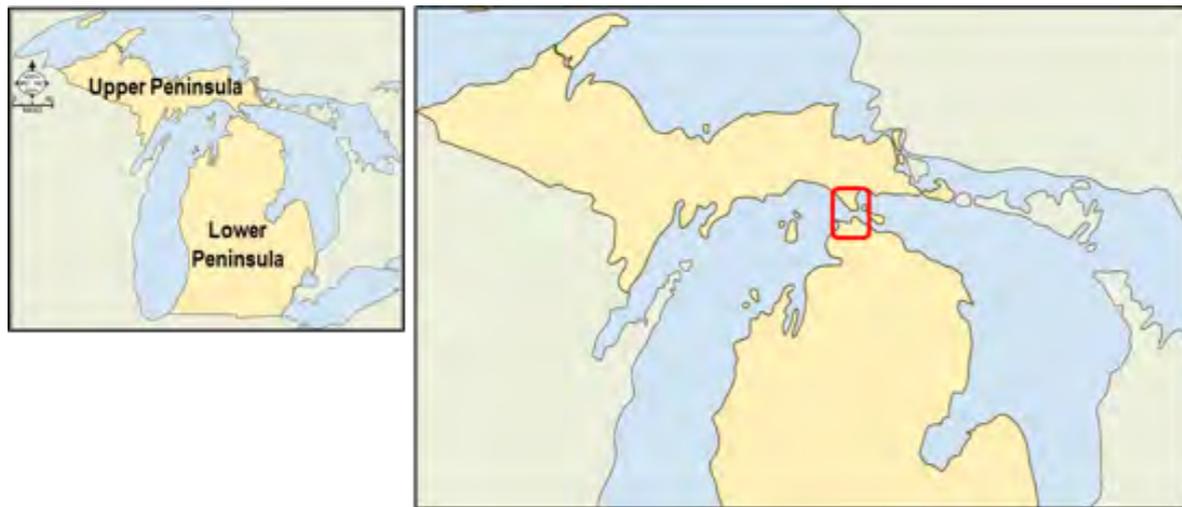


★ INTERESTING FACT: In 1849, Catherine Shook became the first woman to be a lighthouse keeper in the state of Michigan. Her husband Peter had been the lighthouse keeper at Point Aux Barques Lighthouse on the shores of Lake Huron. In March of that year he drowned when his boat sank in Lake Huron. He left Catherine alone at the lighthouse with eight children. She took over as lighthouse keeper.

The Mackinac Bridge

You have probably discovered by now that natural characteristics and human characteristics are often linked together. The Great Lakes are a natural characteristic. Because they can be dangerous, people built lighthouses along them to make water travel safer. Lighthouses are human characteristics.

You have learned that Michigan is made up of two peninsulas. Peninsulas are natural characteristics. On the maps below, find the place where water separates the Upper Peninsula from the Lower Peninsula. People wanted to connect the two peninsulas together. That is why they built the Mackinac Bridge. A bridge is a human characteristic.



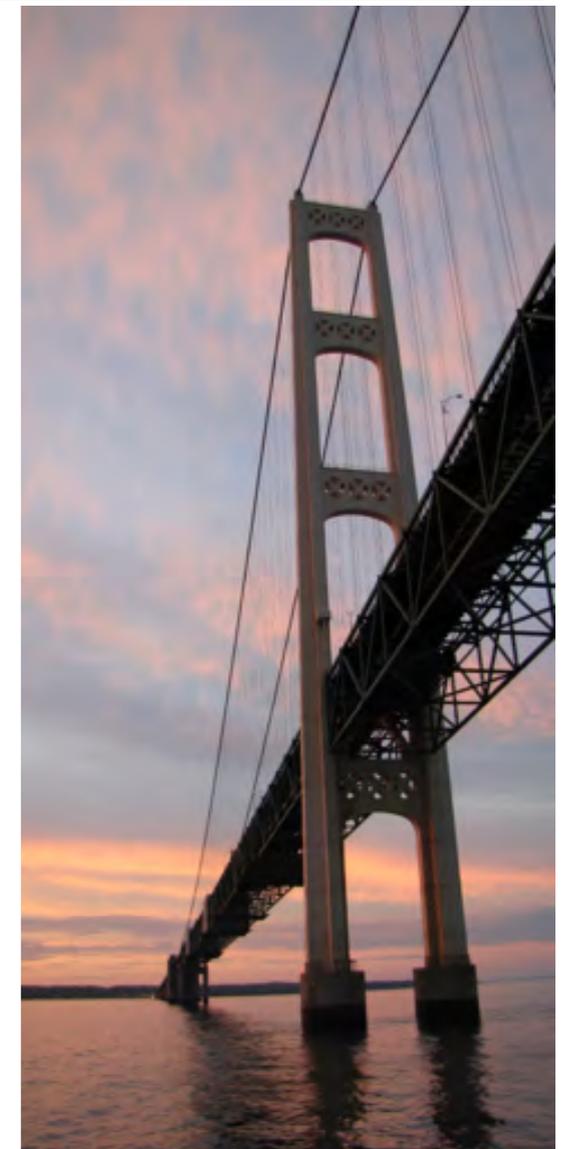
The red box on the map shows where the Mackinac Bridge was built to connect the Upper Peninsula to the Lower Peninsula.



The Mackinac Bridge

(Photo: Carol Egbo)

Before the bridge was built, people had to travel by ferry to get to the Upper Peninsula. A **ferry** is a boat that carries people and cars. Traveling by ferry took extra time and money. It made travel difficult. Sometimes cars could be lined up for hours waiting for their turn. It is said cars could be backed up for 16 miles! The bridge made travel to the Upper Peninsula easier. It helped tourists and goods travel back and forth.



The Mackinac Bridge

(Photo: Carol Egbo)



Interactive 1.29 Building the Mackinac Bridge



Click here to learn more about the Mackinac Bridge and how it was built!

International Bridges

The Mackinac Bridge is just one of Michigan’s many bridges. There are three special bridges in Michigan that allow people to travel from Michigan to Canada. They are the International Bridge, the Blue Water Bridge, and the Ambassador Bridge. You have to pay a fee and have a special license to cross these bridges into Canada. Being able to travel easily between Canada and the United States is important for trade and work.

Source: <http://updigit.uproc.lib.mi.us/cdm/singleitem/collection/macbrdg/id/1576/rec/3>

Interactive 1.30 International Bridges



Learn more about International Bridges in this slideshow.

Interactive 1.27 Mackinac Bridge Kids Page



Check out all of the fun stuff for kids to do at this special Mackinac Bridge website

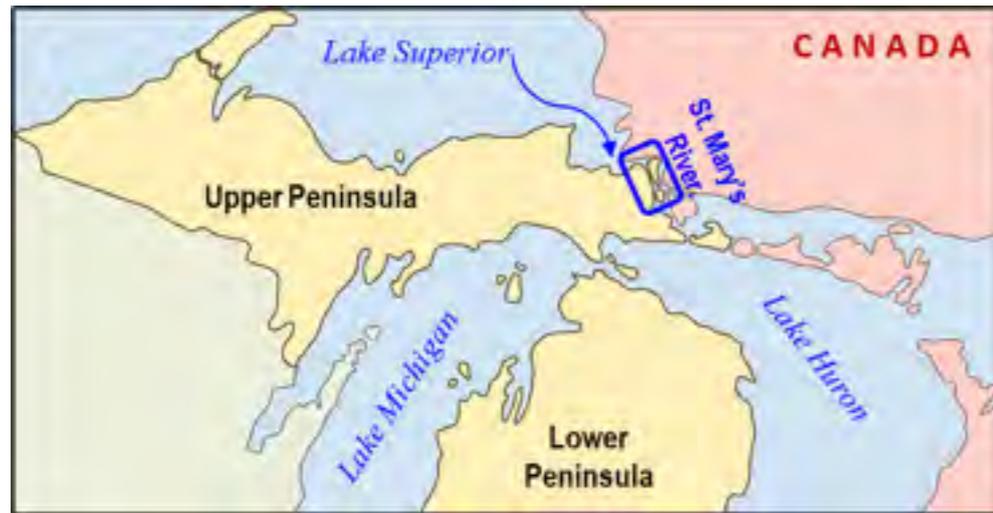
Interactive 1.28 Mackinac Bridge WebCam



Get a snapshot of what's happening on the Mackinac bridge right this second!

The Soo Locks

On the map, find where Lake Superior flows into a river. The mapmaker has drawn a blue box around the river.



The St. Mary's River connects Lake Superior and the other Great Lakes. Near the upper end of the river the water drops down twenty-one feet in less than one mile! This is near the city of Sault St. Marie. When a river drops like this, rapids are formed. The water flows very fast in rapids.

Indigenous people called the Ojibwe have lived near the rapids for hundreds and hundreds of years. They called the area "Bawating" which means "rapids". Fishing has always been an important resource for the Ojibwe at Bawating. They created villages around the rapids for fishing. Fish fed the people. It took a great amount of skill to stand in a canoe in the rapids, balance yourself and spear a fish!

Many Ojibwe, feel the same way about Bawating as many Americans feel about Washington D.C. It is a very important place where many important events took place. It is a place with special meaning.



St. Mary's River Rapids

Source: https://upload.wikimedia.org/wikipedia/commons/f/fc/Eddy_in_St_Mary%27s_Rapids.jpg



This photograph shows Ojibwe canoes and fishermen in the lower end of the rapids.. This photograph was taken over 100 years ago.

Source: <http://updigit.uproc.lib.mi.us/cdm/singleitem/collection/locks/id/650/rec/13>

The **rapids** created problems for large boats. They could not travel through the rapids. Goods had to be taken off the boat and sent over land. Then, they were placed on a boat again at the end of the rapids. This took extra time. The Soo Locks were built so goods could be moved easier. A **lock** is a place where boats can be raised or lowered. It is like an elevator for boats.

PUTTING IT ALL TOGETHER

Lighthouses, bridges, and locks are all human characteristics. They were made by the people of Michigan to help people and goods move safely and quickly. They made our Great Lakes even greater.



Writing Assignment: What are Michigan's most special human characteristics? Describe two and tell why they are special.

Interactive 1.31 The Soo Locks



Click here to learn about the Soo Locks from a young deck hand who worked on a freighter one summer:

Interactive 1.32 The Soo Locks - The Mitten



To learn more about the Soo Locks read this issue of "The Mitten"

Interactive 1.33 How a Lock Works



Click here to see how a lock works.

How can Michigan be Divided into Regions?

QUESTIONS TO GUIDE INQUIRY

1. What can we use to learn about the geography of Michigan?
2. What natural and human characteristics are significant in Michigan?

Terms, People, and Places:

Region - an area of land that has common characteristics

You have learned a lot about the natural and human characteristics of Michigan. In this section you will build on what you have learned by studying about regions. A **region** is an area of land that has common characteristics. Places in a region are alike in some way. These characteristics that are alike can be natural, such as forests or climate. They can also be human, such as religion or number of people.

Investigating Regions of the United States

You saw this map in Section 2. It shows a region of the United States (U.S.) that includes Michigan. What characteristic do the states in this region have in common? Do they all have sand dunes?



If you answered that all these states touch the Great Lakes you are correct! The states in this region share a natural characteristic: they all border the Great Lakes.

Interactive 1.34 Regions



Learn more about regions in this tutorial

The geographer has outlined two regions on the map. Places in these regions usually get more than 10 feet of snow in winter. These regions could be named the “Heavy Snow Regions” of Michigan.

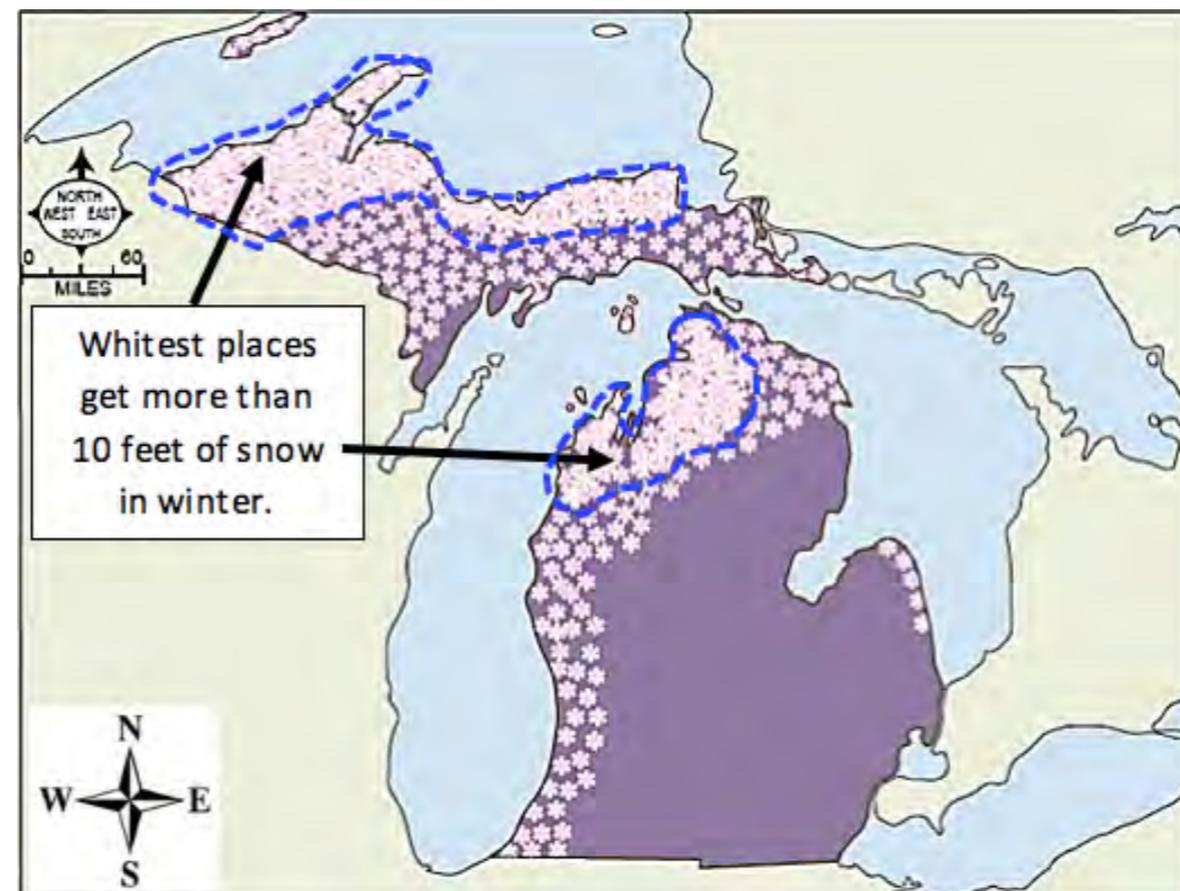
Remember that geographers like to ask ‘why?’ Why are the heavy snow regions of Michigan in these parts of Michigan and not somewhere else?



Why do you think the heavy snow regions are in these parts of Michigan? Turn to a partner and discuss or if you are alone type your answer here.

Investigating Regions of Michigan

You have now discovered some different ways to define regions of the United States. But, what about Michigan? Are there some different ways to define regions of Michigan? Look at this map of Michigan. How many regions has the geographer outlined? What natural characteristic do the places in these regions share?



Interactive 1.35 Regions in Michigan



Learn more about regions in Michigan using this tutorial.

PUTTING IT ALL TOGETHER

Pointing out regions inside Michigan helps you understand that things are NOT THE SAME EVERYWHERE inside Michigan. In fact, things are not even the same inside the Upper Peninsula or inside the Lower Peninsula. Sometimes people say that Michigan has two regions, the Upper Peninsula and the Lower Peninsula. But, based on what you have learned about regions is this true? What characteristic would be found everywhere in the Upper Peninsula? There are mountains but not in the eastern part. There are areas with very few people. But there are also cities like Marquette where there are lots of people. Many geographers do not think of the Upper Peninsula as a “region.” Certainly, it is an important peninsula, but things are not the same everywhere inside the Upper Peninsula. Remember that a region is an area of land that has common characteristics, and places in a region are alike in some way.

