

1: Introducing Industries

Based on the Michigan quarter reverse



OBJECTIVE

Students will explain the effect of temperature/climate, physical features, and economic resources on industries in the United States.



MATERIALS

- 1 overhead projector (optional)
- 1 overhead transparency (or photocopy) of the Michigan quarter reverse
- 1 class map of the United States
- Overhead transparencies (or photocopies) of three or more additional state quarter designs
- Copies of the Michigan quarter reverse
- Blue and green crayons and/or colored pencils
- Copies of the “Introducing Industries” chart
- Copies of the “All About Michigan” page
- 1 copy of the “Introducing Industries” chart key
- Copies of the “Region Cards”
- Adhesive note paper (3 squares per student)



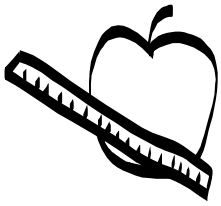
PREPARATIONS

- Make an overhead transparency (or photocopy) of the Michigan quarter reverse.
- Arrange for students to conduct research either in the school’s library or computer lab.
- Prepare a list of appropriate web sites or ask the librarian to pull a selection of appropriate books to help students with their research.
- Make copies of:
 - The Michigan quarter reverse (1 per student).
 - The “All About Michigan” page (1 per student).
 - The “Introducing Industries” chart (1 per student).
 - The “Region Cards”(1 card per student).



GROUPINGS

- Whole group
- Small group
- Individual work



Introducing Industries



CLASS TIME

Three 45- to 60-minute sessions



CONNECTIONS

- Social Studies
- Science
- Language Arts
- Art
- Technology



TERMS AND CONCEPTS

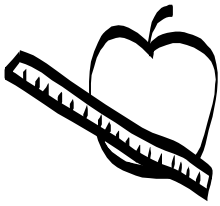
- Quarter
- Reverse (back)
- The Great Lakes
- Industry
- Water-lined
- Landlocked
- Economic resources
- Natural resources
- Capital resources
- Human resources
- Production
- Interdependence
- Region



BACKGROUND KNOWLEDGE

Students should have a basic knowledge of:

- Economic resources (natural, capital and human)
- Goods
- Production
- U.S. geography
- U.S. regions



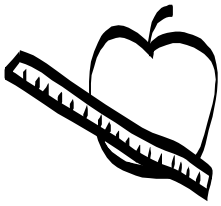
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STEPS

Session 1

1. Describe the 50 State Quarters® Program for background information, if necessary, using the example of your own state, if available. Then display the transparency or photocopy of the Michigan quarter reverse. Locate Michigan on a classroom map. Note its position in relation to your school's location.
2. Distribute a copy of the Michigan quarter reverse to each student.
3. With the students, examine the design on this coin's reverse. Have the students point out the water and the land on this map. Direct them to color the water blue and the land green on their copy of the coin design.
4. Display the images of several (three or more) coin reverses from the 50 State Quarters Program. Point out that these quarters all carry symbols that are important to the state. Ask the students why they think Michigan chose to feature its physical geography rather than another aspect of its culture.
5. Give students a very basic introduction to the Great Lakes, explaining that they are five extremely large freshwater lakes. Using a class map, have students identify other states which border the Great Lakes. Explain that these lakes impact the lives of those who live around them.
6. Discuss the word "resource" and ask the students to recall the definition. Students should arrive at the idea that a resource is something that can be sold and used in its original form, or can be used to create goods that people need. Review the differences between natural, human, and capital resources with your students.
7. Write the following statement on the chalkboard: "The Great Lakes are important because their resources and industries impact the lives of everyone in the region and people throughout the world."
8. Underline the words "industries" and "region," and explore these terms with the students.
9. Re-read the sentence and ask the students what they think might determine the types of industries that exist in a region. Write a list of the students' responses. Students should arrive at the idea that temperature/climate, physical features, and economic resources play a great part in determining the industries in this area.
10. Distribute a copy of the "Introducing Industries" chart to each student. Model the process of completing the chart using your home state as an example.
11. Distribute a copy of the "All About Michigan" page to each student and direct students to read this independently or with a partner. Students should underline any references to temperature/climate, physical features, or natural resources in Michigan.



Introducing Industries

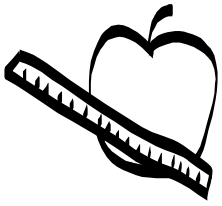
12. Direct the students to complete the “Introducing Industries” chart with the information that they have identified in their reading.
13. Regroup and compare the information that should be listed in each column of the chart.
14. Ask the students to consider the following question: “Are the industries that are based around the Great Lakes Region the same as those in the rest of the country?” Explain that they will be exploring this question over the next few days.

Session 2

1. Distribute a “Region Card” to each student. Direct students to assemble into groups by finding other students with the same region card.
2. In his or her regional group, each student should select a different state to research. They will be exploring the aspects of that state that affect its industries.
3. Ask students to retrieve their “Introducing Industries” chart from the previous session. Direct the students to write the names of their selected states in the appropriate field on this chart.
4. Take students to either the school library or computer lab to conduct their research and complete the chart for their assigned states.

Session 3

1. As a class, develop a chart of symbols for the whole class to use when recording the industries of their assigned states.
2. Distribute three squares of adhesive note paper to each student.
3. Refer the students to their “Introducing Industries” charts. Direct the students to draw one symbol on each adhesive square, representing the top three industries in their assigned states. The students should place their symbols on the class map in the appropriate state.
4. As a class, examine the completed map. Introduce the terms “water-lined” and “landlocked” and ask the students whether or not all water-lined states have the same industries. What might be the cause of these similarities or differences? Are the industries in landlocked states the same as water-lined states? Why or why not?
5. As students are discussing this information, ask those who studied water-lined or landlocked states to speak to the climate and physical features of their state.
6. Direct the students to independently look at the completed class map and write an essay comparing the similarities and differences between the state that they explored and Michigan. Students should consider the regions where these states are located and discuss how the physical similarities and differences impact the industries of that region.

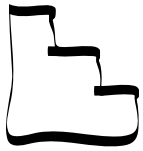


Introducing Industries



ENRICHMENT/EXTENSION

Select a single industry (such as the automotive or shipping industry) and explore in depth the ways that they benefit from the resources, climate and land in Michigan.



DIFFERENTIATED LEARNING OPTION

Students can work in pairs to research the states.





CONNECTION TO WWW.USMINT.GOV/KIDS

Introduce your students to the effect of soil and climate on plant and animal life in “A Biome To Call Home,” a lesson plan relating to the design of the Arkansas quarter. Download it from among the grades 4 through 6 plans in the 2003 50 State Quarters Program collection in the Teachers section of the United States Mint H.I.P. Pocket Change™ Web site (www.usmint.gov/kids/components/50sqLessonPlans/pdf/200346-5.pdf).



Introducing Industries

STATE NAME	TEMPERATURE/ CLIMATE	PHYSICAL FEATURES	NATURAL RESOURCES	INDUSTRIES
HOME STATE				
MICHIGAN				
ASSIGNED STATE				

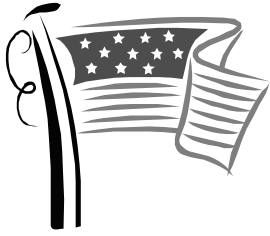


All About Michigan

Michigan is the mitten-shaped state located in the North Central portion of the United States. The name Michigan is based on a Chippewa Indian word “meicigama” meaning “great water.” This name refers to the Great Lakes, which border the state. If you stand anywhere in Michigan, you are within 85 miles of one of the Great Lakes. Michigan’s lower peninsula has low rolling hills in the south, but there are many more hills in the north. On its upper peninsula, the land is flat and swampy in the east and hilly in the west.

Michigan's position in relation to the Great Lakes largely affects the state's climate. As winds blow across the Great Lakes, clouds are created which keep Michigan's temperatures cool throughout the year. Also, due to these winds across the lakes, Michigan receives a large amount of snowfall each winter.

Although Michigan is best known for its automobile manufacturing industry, the state has many other industries which are supported by the local geography, climate, and natural resources. The mining, metal production, and chemical industries of Michigan are supported greatly by the state's soil, which is rich in minerals like iron and copper ore, sandstone, limestone, and salt. The natural forests of Michigan's upper peninsula affect the state's rich lumber, paper manufacturing, and furniture industries. Due to the state's climate, Michigan has a long growing season and is well known for growing corn, cherries, and other fruits and vegetables. This state is also home to a great dairy industry.



Region Cards

NEW ENGLAND

- Maine
- Vermont
- New Hampshire
- Massachusetts
- Connecticut
- Rhode Island

MID-ATLANTIC

- New York
- Delaware
- Maryland
- New Jersey
- Pennsylvania

SOUTH EAST

- Virginia
- West Virginia
- North Carolina
- South Carolina
- Georgia
- Tennessee
- Kentucky

GULF STATES

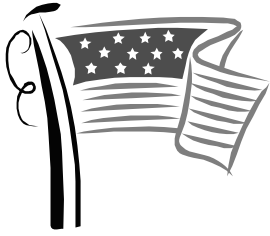
- Florida
- Alabama
- Mississippi
- Louisiana
- Texas

CENTRAL

- North Dakota
- South Dakota
- Nebraska
- Kansas
- Oklahoma
- Arkansas
- Missouri
- Iowa

GREAT LAKES STATES

- Minnesota
- Wisconsin
- Illinois
- Michigan
- Indiana
- Ohio



Region Cards

CENTRAL MOUNTAINS

- Wyoming
- Colorado
- Utah
- Nevada

NORTH WEST

- Oregon
- Washington
- Idaho
- Montana

SOUTH WEST

- New Mexico
- Arizona
- California

NON-CONTIGUOUS STATES

- Alaska
- Hawaii



Michigan Quarter Reverse

