

Jeff Gaydash (American, born 1972). On Anchor Bay: New Baltimore, Michigan, Lake Saint Clair, 2015 (printed 2019). Carbon pigment print; 30 x 74 in. (76.2 x 187.96 cm). Museum Purchase, Albert and Peggy de Salle Charitable Trust.

#### **LEARNING TARGET**

Students build map-reading skills and explore themes of geography and the environment by using a special collection of Great Lakes photographs by Jeff Gaydash.

#### STUDENT OUTCOMES

Students will:

- Understand the importance of the Great Lakes as a natural resource.
- Create a map of the Great Lakes region.
- Describe positive and negative consequences of human activities on the Great Lakes.
- Think deeply about an environmental issue that currently impacts the Great Lakes.

#### MICHIGAN STATE SOCIAL STUDIES STANDARD ALIGNMENT

2nd Grade

- 2-G5.0.1 Suggest ways in which people can responsibly interact with the environment in the local community.
- 2 G5.0.2 Describe positive and negative consequences of changing the physical environment of the local community.

#### 3rd Grade

- 3 G1.0.2 Use thematic maps to identify and describe the physical and human characteristics of Michigan.
- 3 G4.0.1 Describe major kinds of economic activity in Michigan today, such as agriculture, forestry, manufacturing, services and tourism, and research and development, and explain the factors influencing the location of these economic activities. Examples of factors influencing location may include but are not limited to primary industries located near natural resources; manufacturing influenced by accessibility to resources, labor, markets, and capital; and services, which are often located close to markets.
- 3 P4.2.2 Participate in projects to help or inform others.

#### 4th Grade

- 4 G1.0.1 Identify questions geographers ask in examining the United States. Examples may include but are not limited to: Where is it? What is it like there? How is it connected to other places?
- 4 G5.0.1 Assess the positive and negative consequences of human activities on the physical environment of the United States and identify the causes of those activities.
- P4.2 Civic Participation Act constructively to further the public good.

#### 21st CENTURY LEARNING SKILLS ALIGNMENT

- Critical thinking
- Creativity
- Collaboration
- Communication

#### **PRE-VISIT ACTIVITY**

Activity One: 30 minutes

#### Step 1

To assess background knowledge, ask students to do a quick turn-and-talk to discuss the prompt:

- Explain a time when you experienced a large body of water.
- How did it make you feel?
- (If students have never had these experiences, ask them about bodies of water they have read about, seen on TV, or in the movies, and to imagine what it might be like if they were there in real-life.)

After a few minutes, explain to students that they are going to learn about the geography of the Great Lakes region and the importance of the lakes as a natural resource to the local community, the state of Michigan, and the United States.

#### Step 2

Explain the concept of **natural resources** through using Michigan examples, such as iron, copper, cherries, fish, and lumber. Ask students to brainstorm with their partners how Michiganders might use these natural resources to help themselves and their communities. If students need additional practice with this concept, it may be beneficial to give a definition and explore the uses of other natural resources that exist within their local community, Michigan, and the United States, depending on grade level.

#### Step 3

Explain that bodies of water are a natural resource, too. Next, ask students to work with a partner to create a list of ways humans use bodies of water. Ideas may include drinking water, fishing, water sports, swimming, travel, shipping, energy, cleaning, etc. After students put their thoughts on paper, give them a few minutes to sort those ideas into good uses and bad, or harmful uses. Lastly, have them circle the ideas that might benefit the local economy. Students may circle words from either the positive or negative column and should be prepared to discuss their reasoning.

#### Step 4

Next, facilitate a discussion about the lists the pairs created, giving students a chance to share their ideas.

Afterwards, use the *Great Lakes Region Maps PowerPoint*, or use maps of your own, and record student responses on the board as you ask the questions below. Be prepared to discuss any geological features students describe but do not have the vocabulary for yet, such as **peninsula**, **lake**, **region**, etc.

- Slide 2 and 3: Take a moment to look at this map of the Great Lakes region. What do you notice?
- Slide 4: Why might the Great Lakes region be important to the people who live there? To the United States as a country?

#### Activity Two: 40 minutes

Next, students will create their own map of the Great Lakes region. If you have access to watercolors and watercolor paper, use these materials for the creation of the map. Otherwise, colored pencils or markers will suffice. Project a map of the Great Lakes region or create your own as a model for students. Allow students at least 30 minutes to first sketch with a pencil, and then paint their maps, allowing additional time to clean up. Once students are finished, have them label the following areas: the state of Michigan (and surrounding states if you wish), Lake Huron, Lake Ontario, Lake Michigan, Lake Erie, Lake Superior.

As an extension, consider asking students to create a map key that looks at other natural resources in the
region.

#### **GUIDED TOUR EXPLANATION & RATIONALE**

Learning to Look is a guided tour experience helping students in grades 2-4 make personal connections with art. This 45-60-minute tour creates a safe space for young students to feel comfortable in looking closely, sharing their observations, and listening to the ideas of their peers.

#### **SELF-GUIDE**

Students are given the opportunity to practice their map-making and observational skills during this self-guided exercise. Allow students 30-45 minutes in the gallery to complete the graphic organizer entitled *Michigan's Great Lakes: Touring the Region*.

If completing the self-guide graphic organizer at home or school, use these select exhibition images.

#### POST-VISIT ACTIVITY

To conclude their field trip, allow students about 30 minutes to make connections between their experience and classroom content. Encourage students to share their tour stops with a small group of 3 or 4 students, and to explain their response to the Challenge Question at the bottom of the Self-Guide.

Next, show one (or more, if time allows) of the videos (see links below) that details one of several human-inflicted negative impacts on the Great Lakes region. Then ask students to discuss the following questions in their small groups:

- What issues are facing the Great Lakes region today?
- Why are these issues happening now?
- What role have humans played in these issues?
- What do you think our local community can do to help protect the Great Lakes? How can people interact with the lakes responsibly?
- How would you compare the Michigan's Great Lakes photography exhibition to the issues you learned about today? Do they send a similar message? Why or why not?

Video: Climate Wisconsin: Great Lakes Shipping (PBS):

 $\underline{https://dptv.pbslearningmedia.org/resource/ecb10.sci.ess.watcyc.shipping/climate-wisconsin-great-lakes-shipping/}$ 

Video: *The Forever Chemicals: Great Lakes Now* (PBS): <a href="https://dptv.pbslearningmedia.org/resource/84cecea4-41ca-4391-bc49-53f8167251d7/the-forever-chemicals-great-lakes-now-video-the-geography-of-the-great-lakes-curriculum/en/">https://dptv.pbslearningmedia.org/resource/84cecea4-41ca-4391-bc49-53f8167251d7/the-forever-chemicals-great-lakes-now-video-the-geography-of-the-great-lakes-curriculum/en/</a>

Video: Beneath the Surface: The Line 5 Pipeline in the Great Lakes | Great Lakes Now <a href="https://dptv.pbslearningmedia.org/resource/aa857a35-d6d6-41a8-ac33-8df9880f9972/beneath-the-surface-the-line-5-pipeline-video-great-lakes-now-the-geography-of-the-great-lakes-curriculum/">https://dptv.pbslearningmedia.org/resource/aa857a35-d6d6-41a8-ac33-8df9880f9972/beneath-the-surface-the-line-5-pipeline-video-great-lakes-now-the-geography-of-the-great-lakes-curriculum/</a>