The primary focus of the educational experience on the *D.J. Angus* in Grand Haven and the *W.G. Jackson* in Muskegon is hands-on science. However, aspects of the trip address Social Studies Content Expectations. In both Grand Haven and Muskegon, there are historical, economic, social, and environmental issues that are explored as students learn about the aquatic environment. For instance, both cities were involved in lumbering and early commerce (history). Maritime operations can be seen first hand (economics). Land use along the Grand River, Lake Michigan, Spring Lake, and Muskegon Lake illustrates historical and current conditions (geography). An example of public discourse is the examination of the invasive species problem in the Great Lakes. Use and protection of natural resources is an underlying theme.

Some examples of specific Social Studies Content that are relevant to the trip are:

**Alignment for Fourth Grade Trips**

For fourth grade trips, Michigan history beyond statehood is addressed as students view the aquatic environment from the perspective of the human influence.

**Grade Three (review)**

**Geography**

**G5 Environment and Society**

*Understand the effects of human-environment interactions.*

3 – G5.0.1 Locate natural resources in Michigan and explain the consequences of their use.
3 – G5.0.2 Describe how people adapt to, use, and modify the natural resources of Michigan.

**Grade Four**

**History**

**H3 History of Michigan (Beyond Statehood)**

*Use historical thinking to understand the past.*

4 – H3.0.1 Use historical inquiry questions to investigate the development of Michigan’s major economic activities (agriculture, mining, manufacturing, lumbering, tourism, technology, and research) from statehood to present. (C, E)

• What happened?
• When did it happen?
• Who was involved?
• How and why did it happen?
• How does it relate to other events or issues in the past, in the present, or in the future?
• What is its significance?

4 – H3.0.3 Describe how the relationship between the location of natural resources and the location of industries (after 1837) affected and continues to affect the location and growth of Michigan cities. (G, E)

4 – H3.0.4 Draw upon stories, photos, artifacts, and other primary sources to compare the life of people in towns and cities in Michigan and in the Great Lakes region during a variety of time periods from 1837 to the present (e.g., 1837-1900, 1900-1950, 1950-2000). (G)
4 – H3.0.5 Use visual data and informational text or primary accounts to compare a major Michigan economic activity today with that same or a related activity in the past. (E)
4 – H3.0.8 Describe past and current threats to Michigan’s natural resources; describe how Michigan worked in the past and continues to work today to protect its natural resources. (G, C, E)

**Geography**

**G1 The World in Spatial Terms**
*Use geographic representations to acquire, process, and report information from a spatial perspective.*
4 – G1.0.3 Identify and describe the characteristics and purposes (e.g., measure distance, determine relative location, classify a region) of a variety of geographic tools and technologies (e.g., globe, map, satellite image).

**G2 Places and Regions**
*Understand how regions are created from common physical and human characteristics.*
4 – G2.0.2 Compare human and physical characteristics of a region to which Michigan belongs (e.g., Great Lakes, Midwest) with those of another region in the United States.

**G5 Environment and Society**
*Understand the effects of human-environment interactions.*
4 – G5.0.1 Assess the positive and negative effects of human activities on the physical environment of the United States.

**Economics**

**E1 Market Economy**
*Use fundamental principles and concepts of economics to understand economic activity in a market economy.*
4 – E1.0.1 Identify questions economists ask in examining the United States (e.g., What is produced? How is it produced? How much is produced? Who gets what is produced? What role does the government play in the economy?).

**Public Discourse, Decision Making, and Citizen Involvement (P3, P4)**

**P3.1 Identifying and Analyzing Public Issues**
*Clearly state a problem as a public policy issue, analyze various perspectives, and generate and evaluate possible alternative resolutions.*
4 – P3.1.1 Identify public issues in the United States that influence the daily lives of its citizens.
4 – P3.1.2 Use graphic data and other sources to analyze information about a public issue in the United States and evaluate alternative resolutions.

**Alignment for Fifth – Eighth Grade Trips**

Key process knowledge skills addressed on the vessel trips are inquiry, research and analysis. Specifically, the scientific method is stressed as students gather data to determine the water quality. Students have an opportunity to see the role of decision-making in addressing threats to Great Lakes and local water bodies.

**General Knowledge, Processes, and Skills for Grades 5-8 Social Studies**
*Embedded in Grades 5-8 standards and expectations*

**K1 General Knowledge**
K1.1 Understand and analyze important temporal, spatial, political, and economic relationships, patterns, and trends.
K1.2 Understand historical, geographical, political, and economic perspectives.

**P2 Inquiry, Research, and Analysis**
*critically examine evidence, thoughtfully consider conflicting claims, and carefully weigh facts and hypotheses.*
P2.1 Understand the scientific method of inquiry to investigate social scientific and historical problems.
P2.2 Read and interpret data in tables and graphs.
P2.3 Know how to find and organize information from a variety of sources, analyze, interpret, support interpretations with evidence, critically evaluate, and present the information orally and in writing; report investigation results effectively.
P2.4 Use multiple perspectives and resources to identify and analyze issues appropriate to the social studies discipline being studied.
P2.5 Use deductive and inductive problem-solving skills as appropriate to the problem being studied.

P3 Public Discourse and Decision Making – engage in reasoned and informed decision making that should characterize each citizen’s participation in American society.
P3.1 Clearly state an issue as a question of public policy, trace the origins of an issue, analyze various perspectives, and generate and evaluate possible alternative resolutions.

Grade Five

Fifth grade social studies focus on a more discipline-centered approach that centers on United States History to 1800. The P2 Inquiry, Research and Analysis expectation applies to trips for this age group.

Grade Six

The study of the Western hemisphere is the theme in sixth grade. Awareness of how cities along Lake Michigan were developed, patterns of commerce, and human impacts on the environment are addressed on vessel trips. Skills and knowledge that can be developed in the context of a vessel trip are:

History

H1 The World in Temporal Terms: Historical Habits of Mind (Ways of Thinking)
Evaluate evidence, compare and contrast information, interpret the historical record, and develop sound historical arguments and perspectives on which informed decisions in contemporary life can be based.
H1.1 Temporal Thinking
Use historical conceptual devices to organize and study the past.
H1.2 Historical Inquiry and Analysis
Use historical inquiry and analysis to study the past.
H1.4 Historical Understanding
Use historical concepts, patterns, and themes to study the past.

Geography

G1 The World in Spatial Terms: Geographical Habits of Mind
Describe the relationships between people, places, and environments by using information that is in a geographic (spatial) context. Engage in mapping and analyzing the information to explain the patterns and relationships they reveal both between and among people, their cultures, and the natural environment. Identify and access information, evaluate it using criteria based on concepts and themes, and use geography in problem solving and decision making. Explain and use key conceptual devices (places and regions, spatial patterns and processes) that geographers use to organize information and inform their study of the world.
G1.2 Geographical Inquiry and Analysis
Use geographic inquiry and analysis to answer important questions about relationships between people, cultures, their environment, and relations within the larger world context.
G1.3 Geographical Understanding
Use geographic themes, knowledge about processes and concepts to study the Earth.
G4 Human Systems
Explain that human activities may be seen on Earth’s surface.
G4.2 Technology Patterns and Networks
Describe how technology creates patterns and networks that connect people, products, and ideas.

G4.3 Patterns of Human Settlement
Describe patterns, processes, and functions of human settlement.

G5 Environment and Society
Explain that the physical environment is modified by human activities, which are influenced by the ways in which human societies value and use Earth’s natural resources, and by Earth’s physical features and processes. Explain how human action modifies the physical environment and how physical systems affect human systems.

G5.1 Humans and the Environment
Describe how human actions modify the environment.

Public Discourse, Decision Making, and Citizen Involvement (P3, P4)
P3.1 Identifying and Analyzing Issues, Decision Making, Persuasive Communication About a Public Issue, and Citizen Involvement
6 – P3.1.1 Clearly state an issue as a question or public policy, trace the origins of an issue, analyze various perspectives, and generate and evaluate alternative resolutions. Deeply examine policy issues in group discussions and debates to make reasoned and informed decisions. Write persuasive/argumentative essays expressing and justifying decisions on public policy issues. Plan and conduct activities intended to advance views on matters of public policy, report the results, and evaluate effectiveness.

Grade Seven
The seventh grade focus is the Eastern hemisphere. However, many of the skills introduced earlier continue to be developed. The general history content expectations (H1) and geography content expectations (G1, G4, G5) can be reinforced on vessel trips as well as P3.1 Identifying and Analyzing Issues, Decision Making, Persuasive Communication About a Public Issue, and Citizen Involvement for Grade 7.

Grade Eight
Eighth grade is an integrative year. Trips on the Jackson and the Angus stress that protection of the Great Lakes involves interplay between local, state, and federal stakeholders.

Public Discourse, Decision Making, and Citizen Involvement (P3, P4)
P3.1 Identifying and Analyzing Issues, Decision Making, Persuasive Communication About a Public Issue, and Citizen Involvement
8 – P3.1.1 Identify, research, analyze, discuss, and defend a position on a national public policy issue.
• Identify a national public policy issue.
• Use inquiry methods to trace the origins of the issue and to acquire data about the issue.
• Generate and evaluate alternative resolutions to the public issue and analyze various perspectives (causes, consequences, positive and negative impact) on the issue.