

Social and Economic Impacts of the Grand River

1.2 Lesson Sequence



Wenk Associates

Engage

- Ask students what they know about the Grand River.
 - What does it look like?
 - Has it always looked this way?
- Show **Grand River History and Economics Video**
- Ask students what questions they have about the video/river. Come back to these as you work through the lessons.

Explore

Students should complete **1.2a Social and Economic Impact**. One side has a table for analyzing the eras and the other a graph for interpreting how human population impacts important events on the river. Students can individually make their graph of population and important events as you progress through the eras or, as a class, a large one could be made on the wall. If having students become experts on specific eras the large wall graph allows students to add images of their artifacts along with population data and additional information from their readings to the timeline. Be sure to allow time for whole class questions and discussions regarding the eras if this is done as expert groups. The large graphs can be used as a reference throughout your stream study if you are doing other lessons on the Grand River. See Figure 1 for an example timeline with population, artifacts, and notes.

Figure 1 Example Class Timeline

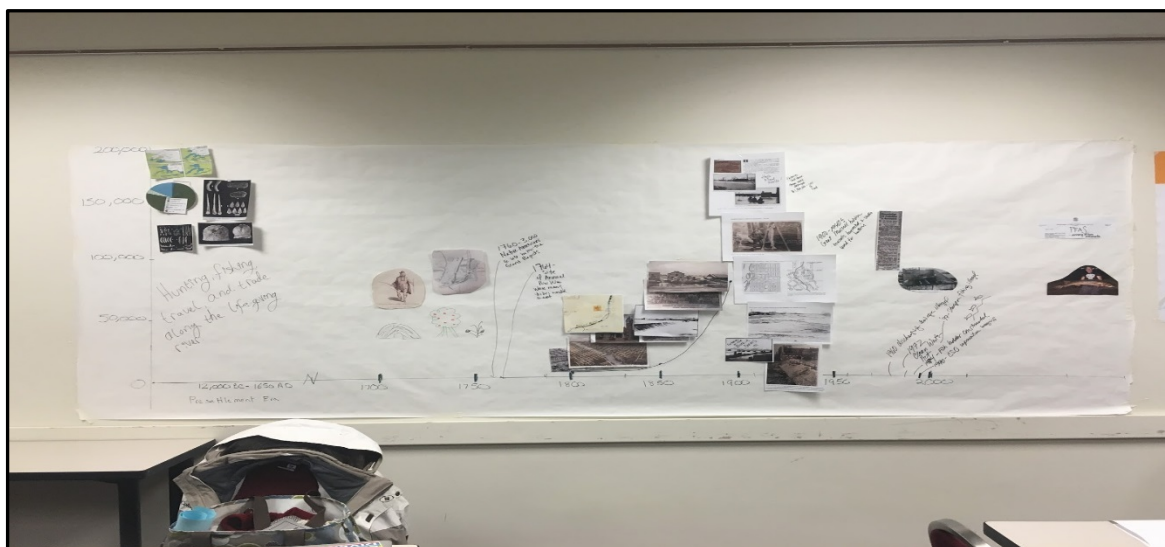


Photo credit: Brenda Perry

Explore, con't

1. Primary Source Reading: After reading their articles, have students make predictions on what they think life was like during this time period.
2. Artifacts: Have students spend some time looking at and interpreting the artifacts. You might elect to only use one or two artifacts for a deeper examination or you might want to offer a larger selection so students can gravitate toward the ones that speak to them. Practice with students making observations about the objects and inferences about what the objects imply about life at this time. What questions do they have about the people of this time?
3. Summary of River Events/Changes: Have students read the summary with their groups and discuss what they think are important events. Have students complete their era's portion of the graph, putting in the important events of the time.

Outlines of Materials, Grouped by Era

2.0 Pre-settlement

2.1a Primary Source Reading Indian Mounds 1 & 2

- This reading describes the removal of the mounds near Grand Rapids as a young man. By Eugene Belknap, one of the founders of the City.

- 2.1b Research-based article on the discovery of Paleo Indian sites now underwater (more difficult): Evidence for early hunters beneath the Great Lakes.
 John M. O'Shea, Guy A. Meadows, Proceedings of the National Academy of Sciences Jun 2009, 106 (25) 10120-10123; DOI:10.1073/pnas.090278510
 Can be accessed at <https://www.pnas.org/content/106/25/10120>

2.2 Pre-settlement Artifacts

- Video about the preservation of burial mounds
- Images of Hopewell Mounds
- Items that were uncovered during an archaeological dig
- Map of locations of burial mounds in downtown Grand Rapids, with references to current buildings.
- Pie graph of land use/cover
- Diagram of the glacial retreat

2.3 Pre-settlement Summary

3.0 1650 – 1800

3.1 1650-1800 Primary Source Chapter 1 History of GR

- Description of Indian Villages at Grand River. Prior to reading, you may wish to discuss the biases the author brought to the writing of this article before reading it.

3.2 1650-1800 Artifacts

- Map of Michigan showing portage route European Traders Used
- Map of Grand Rapids showing Native American Settlements
- Image of Ottawa tribe member

3.3. 1650-1800 Summary

4.0 1801-1900

Select the primary resource(s) most suited to your class.

4.1a 1801-1900 Primary Source Industry

- Description of business in Grand Rapids. (Print at over 100%, as fonts are very small in this PDF.)

4.1b 1801-1900 Primary Source Island Description

- A description of playing on islands as a child by Eugene Belknap

4.1c 1801-1900 Primary Source Saw Mill Description

- Short description of a saw mill of the period

4.2 1801-1900 Artifacts

- Link and transcript to the audio story about Madeline La Framboise, a female Indian/European.
- Drawing of first buildings, including Native American Village with accurate placement of locations.
- Map showing canals, rapids, & islands: street names will allow student familiar with downtown to compare what is there today. Using Google maps to would be helpful.
- St. Mark's church and a limestone kiln by the Grand. The church's limestone exterior was quarried from the Grand River.
- Image of the wooden dam at 6th street (2nd version of the dam).
- Image of a farm: shows how pasture goes right up to the stream with no riparian buffer.
- Map of the Grand River with the 6th Street dam in place.
- Image of the log jam of 1883 & link to article.
- Image of canals.

- Image of furniture factory workers, some very young.
- Population Data

4.3 1801-1900 Summary

5.0 1901 – 2000

5.1 1901 - 2000 Primary Source Fish Ladder

- Article from *The Grand Rapids Press* when the fish ladder was put in.

5.2 1901 - 2000 Artifacts

- Images from 1904 flood book
- Link to an article to be printed about 1904 flood
- Image of sturgeon caught in 1906
- Image of Bridge Street with factories in the background, lots of smoke
- Image of the dry riverbed
- Image of scrips workers in 1930 grading the streambank. They worked for Grand Rapids scrips that could be spent at the Grand Rapids City's store during the Great Depression.
- Maps comparing past streambanks with 1926 streambanks
- River, canals, factories
- Article about sewage discharge at Riverside Park
- Land use in 1978
- Population Data

5.3 1901 - 2000 Summary

6.0 Today

6.1 Today - N/A - Select appropriate for classroom

- Intentionally left out, as new news is always coming out.

6.2 Today Artifacts

- Link to video on sturgeon being caught in Grand River
- Drone video of 2018 flood
- Article on 2013 flood
- 2014 biological assessment along the watershed
- Map of dams currently on Grand River
- Link to PFAS data from Kent County & GVSU news article listing
- Population data

6.3 Today Summary

Teachers will most likely want to update and add to the Today materials to show what the current issues/concerns are along the Grand River.

Extend

- The **1.2a Social and Economic Impact Student Worksheet** could form a resource for a claim/evidence/reasoning assessment assignment over the unit.
- Using one of the public domain books listed in the sources, have students find descriptions of different citizens of Grand Rapids, then write about the River from the perspective of different past citizens.

Additional Resources

The Grand Rapids Public Library has a copy of *A Grand Rapids Sampler* by Gordon L. Olson. This book has reproductions of newspaper articles throughout Grand Rapids history, as well as colorful commentary on the articles. This would make a useful classroom resource to have on hand during this unit.

In addition, the unit sources references several full texts in the public domain regarding Grand Rapids history.