

Unit Overview

Erie Canal for the Classroom is an inquiry-based unit aligned with the New York State Social Studies Standards and Practices for Grade 4. In this unit, teachers will facilitate student understanding of the Erie Canal using local historical resources made available through the Rochester Public Library. Students will have an opportunity to discover what a canal system is and how it impacts the people around it. They will learn how to use primary source documents, find answers to student and teacher questions, and learn how the Erie Canal impacts their lives today. This unit overview contains the following information:

1. An explanation of how to use the resources provided in the unit
2. Connections to New York State Grade 4 Social Studies Standards and Practices
3. Pedagogical terminology
4. Lessons at a glance

1. EXPLANATION OF HOW TO USE UNIT RESOURCES

Erie Canal for the Classroom is designed to be used as a full 4- to 6-week unit that allows teachers to address multiple New York State Social Studies Standards and Practices. Alternatively, teachers may pick and choose lessons from the unit that meet specific instructional needs, such as an introduction to canal systems, geography review, debate practice, vocabulary development, or to meet other needs for student understanding. Each lesson includes a featured learning experience, enduring understanding(s), key concepts, guiding questions, relevant state standards and practices, a materials list, and a step-by-step procedure with estimated implementation times. Primary resources are provided where needed. These lessons were designed to be taught in the order they are listed, but as always, teachers may determine what is appropriate for their students.

2. CONNECTIONS TO NEW YORK STATE GRADE 4 SOCIAL STUDIES STANDARDS AND PRACTICES

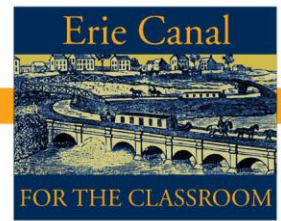
The lessons in the *Erie Canal for the Classroom* unit align with the following New York State Social Studies Standards and Practices for Grade 4.

Grade 4: Social Studies Standards

4.1a Physical and thematic maps can be used to explore New York State's diverse geography.

Students will be able to identify and map New York State's major physical features, including mountains, plateaus, rivers, lakes, and large bodies of water, such as the Atlantic Ocean and Long Island Sound.

Students will examine New York State climate and vegetation maps in relation to a New York State physical map, exploring the relationship between physical features and vegetation grown, and between physical features and climate.



Unit Overview

4.1b New York State can be represented using a political map that shows cities, capitals, and boundaries.

Students will create a map of the political features of New York State that includes the capital city and the five most populous cities, as well as their own community.

Students will examine the location of the capital of New York State and the major cities of New York State in relation to their home community, using directionality, and latitude and longitude coordinates.

Students will use maps of a variety of scales including a map of the United States and the world to identify and locate the country and states that border New York State.

4.6a After the Revolution, New Yorkers began to move and settle farther west, using roads many of which had begun as Native American trails.

Students will examine why people began to move west in New York State.

Students will examine the difficulties of traveling west at this time and methods used to improve travel on roads, including corduroy roads and turnpikes.

4.6b In order to connect the Great Lakes with the Atlantic Ocean, the Erie Canal was built. Existing towns expanded and new towns grew along the canal. New York City became the busiest port in the country.

Students will examine the physical features of New York State and determine where it might be easiest to build a canal, and form a hypothesis about the best location. Students will compare their hypothesis with the actual location of the Erie Canal.

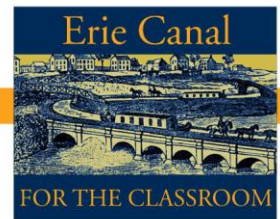
Students will examine how the development of the canal affected the Haudenosaunee nations.

Students will locate and name at least five towns and four cities along the canal, and identify major products shipped using the canal.

4.6c Improved technology such as the steam engine and the telegraph made transportation and communication faster and easier. Later developments in transportation and communication technology had an effect on communities, the State, and the world.

Students will investigate which early means of transportation were used in their local community and to which communities they were linked, noting why they were linked to those communities.

Students will trace developments in transportation and communication technology from the 1800s to the present, noting the effects that these changes had on their communities, the State, and the world.



Unit Overview

4.6d Farming, mining, lumbering, and finance are important economic activities associated with New York State.

Students will examine New York State's key agricultural products during the 1800s and compare these to the key agricultural products of today.

Students will explore which resources were extracted in New York State over time, the location of those resources, and the economic activities associated with those resources.

4.6f Between 1865 and 1915, rapid industrialization occurred in New York State. Over time, industries and manufacturing continued to grow.

Students will trace manufacturing and industrial development in New York State and in their local community in terms of what major products were produced, who produced them, and for whom they were produced from the 1800s to today.

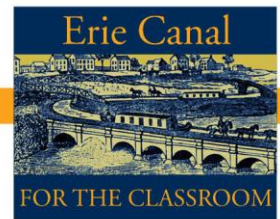
Grade 4: Social Studies Practices

A. Gathering, Interpreting, and Using Evidence

1. Develop questions about New York State and its history, geography, economics, and government.
2. Recognize, use, and analyze different forms of evidence used to make meaning in social studies (including sources such as art and photographs, artifacts, oral histories, maps, and graphs).
3. Identify and explain creation and/or authorship, purpose, and format for evidence; where appropriate, identify point of view.
4. Identify arguments of others.
5. Identify inferences.
6. Create an understanding of the past by using primary and secondary sources.

B. Chronological Reasoning and Causation

1. Explain how events are related chronologically to one another.
3. Identify the relationship between multiple causes and multiple effects, using examples from his/her life or from a current event or history.
4. Distinguish between long-term and immediate causes and effects of a current event or an event in history.
6. Use periods of time such as decades and centuries to put events into chronological order.



Unit Overview

7. Recognize and identify patterns of continuity and change in New York State.

C. Comparison and Contextualization

2. Identify multiple perspectives on an historical event.

4. Recognize the relationship between geography, economics, and history in social studies.

5. Describe historical developments in New York State with specific detail, including time and place.

D. Geographic Reasoning

1. Use location terms and geographic representations (maps and models) to describe where places are in relation to each other, to describe connections between places, and to evaluate the benefits of particular places for purposeful activities.

2. Distinguish human activities and human-made features from “environments” (natural events or physical features—land, air, and water—that are not directly made by humans).

3. Identify how environments affect human activities and how human activities affect physical environments.

4. Recognize relationships between patterns and processes.

5. Describe how human activities alter places and regions.

E. Economics and Economic Systems

4. Explain why individuals and businesses specialize and trade.

F. Civic Participation

1. Demonstrate respect for the rights of others in discussions and classroom debates, regardless of whether one agrees with the other viewpoints.

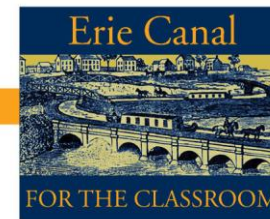
2. Participate in activities that focus on a classroom, school, community, state, or national issue or problem.

4. Identify opportunities for and the role of the individual in social and political participation in the school, local, and/or state community.

6. Identify situations in which social actions are required and suggest solutions.

7. Identify people in positions of power and how they can influence people’s rights and freedom.

8. Identify rights and responsibilities as a citizen of your community and state.

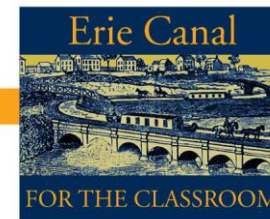


Unit Overview

3. PEDAGOGICAL TERMINOLOGY

The following list of terms may be useful for teachers in implementing this unit.

| Term | Definition |
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| Concept | <p>An abstract idea or an understanding which transfers:</p> <ul style="list-style-type: none"> • through time • across cultures • across situations/subject areas <p><i>*For more information, see H. Lynn Erickson's work on concept-based teaching and learning.</i></p> |
| Enduring Issue | <p>An enduring issue is a challenge or problem that a society has faced and debated or discussed across time. An enduring issue is one that many societies have attempted to address with varying degrees of success.</p> <p><i>*For more information, visit the EngageNY website:</i> https://www.engageny.org/sites/default/files/2-enduring-issues-chart.pdf.</p> |
| Enduring Understanding | <p>An enduring understanding is a statement that summarizes important and transferable ideas containing key concepts and theories.</p> |
| Formative Assessment | <p>Check-ins for understanding that happen during teaching in order to adjust the teaching based on what the learner currently understands.</p> |
| Inquiry | <p>A pedagogical approach to teaching and learning that includes:</p> <ul style="list-style-type: none"> • Exploring, investigating, researching, and wondering • Investigating multiple points-of-view • Collecting, interpreting, analyzing and presenting evidence/conclusions • Playing with ideas • Asking questions and finding answers, which may lead to new questions • Making connections to background knowledge • Purpose • Discovering and uncovering |
| Primary Source | <p>Primary sources are a window to the past; they provide unfiltered access to the record of artistic, social, scientific, and political thought and achievement during the specific period under study, produced by people who lived during that period.</p> <p><i>* For more information, visit the Library of Congress website:</i> http://www.loc.gov/teachers/usingprimarysources/whyuse.html</p> |

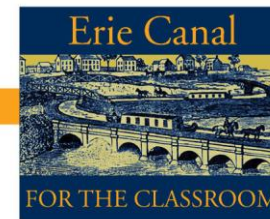


Unit Overview

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| Standards and Practices | <p>The New York State Social Studies Standards serve as a consistent set of expectations for what students should learn and be able to do, so that we can ensure that every student across the state is prepared to be an active and engaged citizen who is ready to pursue college or a career.</p> <p>The New York State Social Studies Practices represent the social science and historical thinking skills that students should develop throughout their K-12 education in order to be prepared for civic participation, college, and career.</p> <p><i>*For more information, visit the New York State Education Department website:</i> http://www.nysed.gov/common/nysed/files/programs/curriculum-instruction/ss-framework-k-12-intro.pdf</p> |
| Summative Assessment | Check-ins for understanding that happen after teaching in order gain information about what the learner has and has not yet mastered. |

4. LESSONS AT A GLANCE

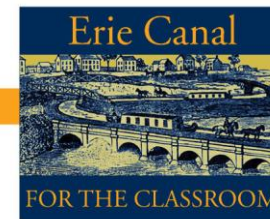
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| Learning Experience | What is a canal? |
| Enduring Understandings | Bodies of water have similarities and can be classified. A canal is a type of body of water. |
| Concepts | geography, technology, classification |
| Questions | What do you see/think/wonder? What types of bodies of water can you identify; how do you know? Which images show canals; how do you know? Based on our T-Chart, “Canals, NOT Canals,” what definition would you give to a canal? |
| Standards | 4.1a, 4.6b |
| Practices | A1, A2, D1, D2, |
| Materials | Image of a familiar body of water; See Think Wonder worksheet; images depicting water; sticky notepads; writing utensils; chart paper or board that can be left up for a few weeks; masking or painter’s tape |
| Lesson Duration | 55 minutes |



Unit Overview

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| Learning Experience | Famous Canals |
| Enduring Understanding | Canal systems exist around the world and serve a purpose for people. |
| Concepts | system, similar/different, connection |
| Questions | Where is the canal located? When was it built? What is the main purpose of the canal; how do you know? Is the canal functional today; if so, does it still have the same purpose? How are canal systems around the world similar and different? Is there anything unique or interesting about each canal? How do these canals compare to the Erie Canal? Why should we learn about canals around the world? |
| Standards | 4.1a, 4.1b, 4.6b |
| Practices | A1, A2, A5, A6, B1, B4, B6, C4, D1, D3, D4, D5 |
| Materials | Erie Canal primary sources such as images, maps, short articles; Famous Canal Research Template; large butcher paper or chart paper; markers; access to device and Internet for research; books, articles, images, and any other relevant source to gather information; a way to record student thoughts where students can see/access all |
| Lesson Duration | 2.5 hours over 3 days |

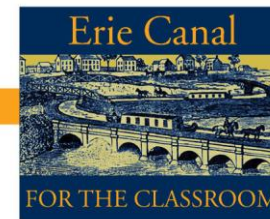
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| Learning Experience | How Canals Affect the People around Them |
| Enduring Understanding | Canals serve a purpose and influence the people around them. |
| Concepts | system, technology, problem/solution |
| Questions | What do you see/think/wonder? Where is your canal located? What year was your canal built? Why did the people in that area need a canal? What problems did the people face? How did this canal solve their problem(s)? Is this canal operating today; why or why not? How do canal systems affect the people around them? |
| Standards | 4.1a, 4.1b, 4.6a, 4.6b, 4.6c, 4.6d, 4.6f |
| Practices | A1, A2, A5, A6, C4, D1, D2, D3, D4, D5 |
| Materials | See Think Wonder worksheet; Erie Canal image; timer; How Canals Affect People graphic organizer; primary source documents depicting the history of the Erie Canal and its purpose; sticky note pads; pencils; images of canals from around the world that serve different purposes |
| Lesson Duration | 2 hours 40 minutes over 3 days |



Unit Overview

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| Learning Experience | Why New York Needed a Canal |
| Enduring Understanding | People innovate to solve problems and meet their needs. |
| Concepts | innovation, transportation, industrialization |
| Questions | What was it like to do business in New York State in the early 1800s? Where did people live and work in New York State? What was the Industrial Revolution? Why were people looking for a new mode of transportation? What did the Erie Canal do for the people in New York State? How did the creation of the Erie Canal impact the people outside of New York State? |
| Standards | 4.1b, 4.6a, 4.6b, 4.6c, 4.6d, 4.6f |
| Practices | A2, A6, C4, C5, D1, D2, D3, D5 |
| Materials | Primary source documents representing early 19th-century commerce and industry; Why NY Needed a Canal Recording Sheet as graphic organizer and class document; chart paper or electronic notetaking space for whole-group discussion/brainstorm; Why NY Needed a Canal Problem-Solution T-Chart |
| Lesson Duration | 1 hour 40 minutes over 2 days |

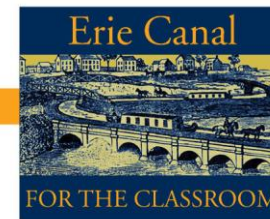
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| Learning Experience | Causes and Effects of the Erie Canal |
| Enduring Understanding | The Erie Canal affected people long ago and today. |
| Concepts | cause and effect, connection, change |
| Questions | Why did New York need a canal? What were some immediate effects of building the canal for the people of New York State? What were some immediate effects of building the canal for areas outside of New York State? What are some long-term effects of the Erie Canal in Rochester, in New York State, and across the country? What are some current uses of the Erie Canal? Was building the Erie Canal a good idea? |
| Standards | 4.6a, 4.6b, 4.6c, 4.6d, 4.6f |
| Practices | A2, A4, A6, B1, B3, B4, B7, D2, D3, D5 |
| Materials | Primary Source Image Cards; poster paper and markers, notecards, or digital setup for students to sort; half sheets of paper and pencils, electronic assignment turn-in, or notecards to document student work (if this is to be used as a formative assessment) |
| Lesson Duration | 70 minutes |



Unit Overview

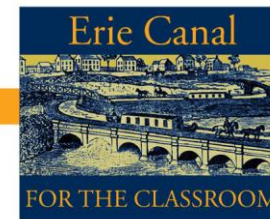
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| Learning Experience | Enduring Issues |
| Enduring Understanding | There are recurring patterns in challenges that people have faced over time. |
| Concepts | enduring issue, pattern, change |
| Questions | What is an enduring issue? How do we know if it is enduring? What are some enduring issues related to the Erie Canal? Why is it important to learn about the past? |
| Standards | All NYS Social Studies Standards could be addressed in this lesson. |
| Practices | A2, A6, B1, B3, B7, C2, C4 |
| Materials | Poster paper, tape, and markers; Egg Nest Graphic Organizer; images that connect with a clear enduring issue (from NYS Standards K-3—examples provided); resource sets for independent/group work; student recording sheet with Enduring Issues checklist, example list, and resource sets |
| Lesson Duration | 60 minutes |

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| Learning Experience | Digital Scavenger Hunt |
| Enduring Understanding | We can learn about history by observing and thinking about primary source documents. |
| Concepts | sources, observation, connection |
| Questions | How can we use primary sources to learn about the past? What are similarities and differences between different types of artifacts? |
| Standards | 4.1a, 4.1b, 4.6b, 4.6c |
| Practices | A2, A6, D1 |
| Materials | Link to Erie Canal Digital Scavenger Hunt; scrap paper for students to record information; teacher-only link to pre-filled Erie Canal Digital Scavenger Hunt; primary source documents |
| Lesson Duration | 60 minutes |



Unit Overview

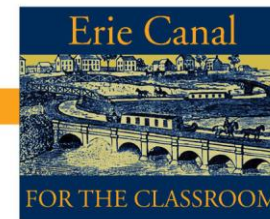
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| Learning Experience | The Story of the Erie Canal |
| Enduring Understanding | Historical objects tell a story. |
| Concepts | chronology, primary sources, geography, industrialization, trade, transportation, change |
| Questions | What can historical objects tell us about a person, place, thing, or event? How can we piece historical objects together to tell a story? How did the Erie Canal shape the people and places around it? Why should we care about the past? |
| Standards | 4.1a, 4.1b, 4.6a, 4.6b, 4.6c, 4.6d, 4.6f |
| Practices | A1, A2, A6, B1, B3, B6, C4, C5, D1, D2, D3, D5, E4 |
| Materials | Poster paper and markers or electronic notetaking space; students' personal historical objects (if doing the activity in which students bring in items to tell their own stories); Erie Canal primary source documents (provided); notecards or sticky notes; tool for student notetaking; paper or 1:1 technology with microphone, if needed; The Erie Canal Story Rubric (provided) |
| Lesson Duration | 2 hours 5 minutes over 2 days |



Unit Overview

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| Learning Experience | “Where on the Erie Canal?” Green Screen Competition |
| Enduring Understanding | Primary source documents and location features, both natural and human-made, help us identify locations. |
| Concepts | geography, technology, time, systems, sources |
| Questions | What are some interesting and/or recognizable locations on the Erie Canal that are near Rochester, NY? What natural and/or human-made features exist that help people to identify a location? What is important about a location either long ago or today? How can we find accurate information from primary sources to support our understanding? How does a location relate to the Erie Canal? |
| Standards | 4.1a, 4.1b, 4.6b |
| Practices | A2, A3, A6, D1, D2, D3, D5 |
| Materials | Resources used thus far in the unit relating to location; Teacher’s Master Location Chart (provided); Directions and Recording Sheet (provided); paper and pencil or technology device for word processing; space for students to write scripts, practice, and record away from other students; green screen and stand; device and app for recording videos and changing backgrounds; second device or cue cards for students to read scripts from; props or costumes; means for sharing video links; Location Guess Form (provided) |
| Lesson Duration | 3.5 hours over 2-3 days (approximate) |

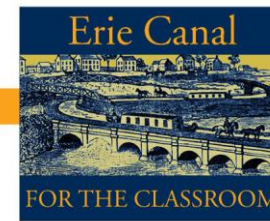
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| Learning Experience | I Used to Think... Now I Think |
| Enduring Understanding | After we learn something new, we can reflect upon how our thinking has changed. |
| Concepts | change |
| Questions | What did you originally think about the Erie Canal? What do you think now? How has your thinking changed? |
| Standards | Can be used with any standard. |
| Practices | Can be used with any practice, especially A2, A3, A6 |
| Materials | Link to Harvard’s <i>Project Zero</i> Thinking Routine, “I Used to Think... Now I Think...”: https://pz.harvard.edu/resources/i-used-to-think-now-i-think ; chart paper or Word/Google Doc open and projected for students to see; pencils and notecards or a half sheet of paper, Google Form, Word/Google document or the “I Used to Think... Now I Think” Reflection Sheet (provided) for written responses; OR, FlipGrid, Padlet, Synth or other app that allows voice/video recording |
| Lesson Duration | 25-30 minutes |



Unit Overview

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| Learning Experience | Erie Canal Headbands Game |
| Enduring Understanding | There are important people, places, things, and events that represent Erie Canal history. |
| Concepts | perspective, history |
| Questions | What people, places, things, and events were important to the development and history of the Erie Canal? How did these people, places, things, and events play a part in the development and history of the Erie Canal? |
| Standards | Can be used with any standard. |
| Practices | Can be used with any practice. |
| Materials | Erie Canal Headbands Game Directions (provided); Canal Cards (template provided); headbands made from strips of paper/cardstock, string/ribbon, or elastic; large paperclips |
| Lesson Duration | 20-40 minutes |

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| Learning Experience | Erie Canal Debate |
| Enduring Understanding | There are differing perspectives on the future of the Erie Canal. |
| Concepts | perspective, fact vs. opinion, past and future |
| Questions | What is a debate? What are current event topics related to the Erie Canal? What are current perspectives on the use of the Erie Canal? Why is it important to understand differences and other perspectives on issues? What is our responsibility for learning about the Erie Canal in the past, present, and future? |
| Standards | 4.1b, 4.6c, 4.6d, 4.6f |
| Practices | A2, A3, A4, A6, C2, D1, D2, D3, D5, F1, F2, F6, F7, F8 |
| Materials | List of controversial questions relevant to fourth graders (provided); poster paper and markers or technology for recording student responses; list of possible debate components (provided); sample debate questions related to the Erie Canal (provided); list of possible roles (provided); resources for research (Internet access, books, articles, etc.); large notecards; Formative Assessment Rubric (provided) |
| Lesson Duration | 90 minutes |



Unit Overview

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| Learning Experience | Erie Canal Mythbusters |
| Enduring Understanding | Evidence can be used to prove statements to be true or false. |
| Concepts | fact/myth, evidence, primary source documents |
| Questions | What is a fact? What is a myth? How are facts proven and myths debunked? Why are primary source documents important? |
| Standards | Can be used with any standard. |
| Practices | Can be used with any practice. |
| Materials | Erie Canal Mythbusters Student Page (provided); Erie Canal Mythbusters Teacher Page (provided) |
| Lesson Duration | 45 minutes with discussion; 5-15 minutes when used as a pre/post-unit assessment |