



Lesson 7.1 “New Hampshire on the Move”

Unit 7: Building a State, 1784 to 1850

Lesson Objectives

- Students will evaluate historic modes of transportation for chronology, purpose, and efficiency.
- Students will use evidence and reasoning information to make a claim about historic modes of transportation and write a C-E-R paragraph answering the focus question.
- Students will apply mathematical thinking to plan a journey for goods across New Hampshire using maps and data about historic modes of transportation.

Lesson Competencies

- I can analyze, use, and construct timelines to explain how events are related chronologically to each other and to explain probable causes and effects of events and developments. (Moose SS)
- I can use sources (pictures, primary and secondary sources, discussion) to expand my understanding of the topic/text and locate information to support my point of view. (ELA 6)
- I can organize my ideas by stating reasons that support my opinion, and using facts and details to say more about each reason. (ELA 6)
- I can analyze, use, and construct maps and other geographic representations to explain relationships between people and the environment. (Moose SS)

Essential Questions

How has New Hampshire come to be the way it is?

Focus Questions

How did the movement of goods and people change during this time?

Estimated Time

Three 40-minute class sessions

Materials & Equipment

Prepared sets of “Modes of Transportation Cards”
“Modes of Transportation (in order)” for projection
Focus question for projection
Prepared sets of “New Hampshire on the Move” labels
Class set of “CER: Claim – Evidence – Reasoning Paragraph” worksheet
Class set of “The Ox-Cart Man’s New and Improved Travel Plan”
Class set of “New Hampshire Town Boundaries” map
Access to online display of “Map of Maine, New Hampshire [...]” (1839) at the Library of Congress at www.loc.gov/resource/g3720.rr000980/



Educator Introduction & Rationale

The rapid development of towns that had begun in the 18th century continued well into the 19th century in New Hampshire. New land was settled and towns formed, particularly in the Lakes Region and the North Country. Once the hard work of founding a new settlement was over, though, people began to look beyond the borders of their towns. Travel was hard, uncomfortable, and painfully slow at this time, but economic, political, and even social needs highlighted the importance of being able to move people and goods around the state. In the time from the American Revolution to the Civil War, turnpikes were incorporated by the legislature, enabling transportation, both public and private, that replaced the zig-zag travel on town roads. Canals connected some waterways, making New Hampshire's 40,000 miles of rivers more usable because they bypassed falls and rapids. The state got its first rail line in 1838, and by the Civil War, dozens of small rail companies created a patchwork of rail lines throughout the state. The development of all of these transportation networks transcended local communities and made travel more feasible. Through roads, canals, and eventually railroads, people and goods moved throughout New Hampshire (and beyond). Such connections fostered more communication over greater distances and a greater awareness of state, regional, and national affairs. Please see the [Educator Overview](#) for more information.

This is the first lesson in Unit 7: Building a State. In this lesson, students examine how changing modes of transportation evolved in the state after the American Revolution up until the Civil War. Students begin by defining and sorting various modes of transportation, then apply evidence and reasoning labels to the transportation timeline. They make a claim, then use a graphic to outline and write a C-E-R paragraph. Finally, students work to help the character from Donald Hall's classic book *Ox-Cart Man* by developing a travel plan more efficient than walking 10 days to market. The infographic "Comparing Travel Times" brings the lesson to the modern day. Please adapt all the material in this lesson, as necessary, to meet the needs of the students in your classroom. Please note, lesson vocabulary and definitions are at the end of this document. You may wish to preview these with your students.

Reinforcement activities investigate the evolution of the First Turnpike in New Hampshire and guide students in evaluating the lesson's modes of transportation for efficiency. Three extension activities examine the pros and cons of the modes of transportation, introduce a railroad debate, and direct students to study the innovative Concord Coach further.

Learning Activity

Activation

Transportation shuffle. Project “Modes of Transportation” or cut out the cards to make sets for individual students or small groups. One by one, review their knowledge of each kind of transportation. Ask:

- What kind of transportation is it?
- How does it work? What resources are necessary for it to function?
- How fast is it?

Ask the students to put the cards in chronological order, from oldest to newest, to represent how long they think people in New Hampshire have been using each mode of transportation. Then, discuss their ideas about the order.

Direct Instruction & Discussion

Expanding transportation in New Hampshire. Display “Modes of Transportation (in order).” Explain to students that each new mode of transportation improved on, or made more efficient use of, the existing landscape and the earlier modes of transportation. The new modes of transportation also helped meet new needs of people as the state changed and grew.

Project or write the focus question, “How did the movement of goods and people change during this time?” Tell students that you will be gathering evidence and reasoning about the evidence so that they will be prepared to make a claim to answer this question.

Guide a student discussion while projecting the correct order of the modes of transportation. Discuss:

- How did each new mode of transportation improve upon those that came before it?
- What did people use the mode of transportation to do?
- What was changing in New Hampshire and the nation that made an expanded transportation system necessary?

Remind students that they have background knowledge to answer these questions. Recall together where this lesson falls in history: after the American Revolution, which ended in 1783, and before the Civil War, which started in 1861. There is also much they know and can reason about modes of transportation systems from their own lives. Remind students that the innovations in modes of transportation didn’t immediately cancel out the older modes; people in New Hampshire used all of these modes regularly until the invention of the automobile.

When appropriate, distribute the “New Hampshire on the Move” labels. These labels contain both evidence and reasoning to support making a claim about the focus question. Decide best practice for your classroom. Students can work in small groups or individually with just the evidence labels, placing them appropriately along the chronological modes of transportation already constructed by the class, and then write the reasoning themselves. Or, students can sort both evidence and reasoning labels along the continuum. You could also model placing reading and placing evidence together as a class and break into pairs to discuss reasoning. The result of discussion will be a collaboratively constructed infographic that can be displayed in the classroom.

Teaching tip: The “New Hampshire on the Move: Sample Layout” is one suggested way of organizing the information. It is unlikely to be helpful to students because not only is the font small but also could be overwhelming in the amount of information presented.

Student Reading

NH’s Transportation Network. Before students write their claims, reinforce their understanding of the development of transportation with Unit 7: Learn It! “[A Transportation Network](#),” pages 1 to 15. Consider having students watch “[Mason Explains: Turnpikes in New Hampshire](#),” which can be accessed on page 4 or on the [Unit 7 Find It!](#) page.

Teaching tip: This is a good spot to pause if you divide the lesson between teaching sessions.

Guided Practice

Making a claim. When the class has completed both evidence and reasoning about changing modes of transportation in New Hampshire during this time, recall student attention to the focus question, “How did the movement of goods and people change during this time?” Invite students individually to write claims answering the question. Appropriate claims include:

- During this time, transportation networks got faster and more efficient.
- During this time, many kinds of transportation networks developed, which let people make more connections.
- During this time, more people and goods were able to be moved throughout New Hampshire more quickly.
- People became more aware of the larger state and nation they lived in because transportation networks at this time connected them more than before.
- Transportation created more and faster communication throughout the state and nation during this time.

Once all students have developed claims, ready your students for writing a C-E-R paragraph answering the question. Remind students that they have already developed all the content for the paragraph; they only need to put it in paragraph form. Use the provided graphic “CER: Claim – Evidence – Reasoning Paragraph” to structure the writing process.

Teaching tip: This is a good spot to pause if you divide the lesson between teaching sessions.

Independent Practice

Get the goods to Portsmouth market. Explain to students that now that they are familiar with the historic modes of transportation, they will use data from primary and secondary sources to make a plan for getting goods from one part of the state to another. Distribute “The Ox-Cart Man’s New and Improved Plan” and have students work individually or in pairs. The activity requires access to an online map, “Map of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut exhibiting the post offices, post roads, canals, rail roads, &c.” at www.loc.gov/resource/g3720.rr000980/. It is also listed in the Supporting Materials section of this document.

Teaching tip: This activity is inspired by Donald Hall’s book *Ox-Cart Man*. While knowledge of the story isn’t necessary to complete the task, it may improve student engagement. If students are not familiar with the book, read it aloud or in small groups before completing this activity.

Reflection

Compare plans. In small groups, review completed plans with students. What was similar about their plans? What was different? Would they change anything about their plan having heard about other ideas?

A natural follow-up activity is to bring transportation networks into the present day. Project and discuss the “Comparing Travel Times” infographic.

Reinforcement

1. **Turnpikes then and now.** Revisit the word “turnpike.” What do students think of when they hear that word? Share with students that the concept of a turnpike was brought to the American colonies by the English, who had created a system of roads that required a toll, or small payment, from people who used them. The roads actually had a barrier of posts (“pikes”) that would be turned or moved out of the way once the traveler had paid the toll. Ask students why they think a toll was required and what that money would be used to do. Then, listen to this story that aired on NHPR about New Hampshire’s first turnpike, which is still used today as Route 4. www.nhpr.org/nh-news/2014-01-02/marking-history-first-new-hampshire-turnpike-in-northwood

Create a Venn diagram to organize the details about what the first turnpike was like long ago and what it is like today.

2. **Efficient transportation.** Return to “Modes of Transportation” cards. Have students rank the cards in order from least to most **efficient** for moving people or goods. Encourage students to think about which modes could move faster or slower, which could carry more or less, which depended on other elements (e.g., roads, rails), and which was more or less expensive to use. Students may also think about which mode of transportation is closer to the starting and ending points of the planned journey.

Extension

1. **Transportation pros and cons.** Provide students with the “Transportation Systems: Pros and Cons” worksheet and provide scissors and glue or tape. Have students work together to reflect on the content and add it to the chart.
2. **Railroad debate.** Tell students to imagine that they are living in their town back in 1838. Construction of rail systems is spreading all over New England and the rail company wants to extend its line through their town. Look at a map of the town today or contact your local historical society for help with finding historical maps. Have students work together to make a plan for where the railroad should run. Consider assigning some students to be against the railroad coming through town and to organize their reasons. Hold a mock town meeting for both sides to present their arguments.
3. **The Concord Coach.** This innovative stagecoach was among New Hampshire’s greatest contributions to the evolution of transportation, not just in the state but around the world. Visit the Abbot-Downing Historical Society’s website at concordcoach.org/ to read more about the company. Create 19th-century advertising posters for the coach of choice. Challenge students to think about the audience for their advertisement. Is there a certain industry or business opportunity the coach could serve?

Supporting Materials

- Abbot-Downing Historical Society. concordcoach.org/
- Comparing Travel Times Infographic from Moose on the Loose (access black-and-white version in the Worksheets and Resources pdf file for Lesson 7.1 or in [color](#) on page 7 of Unit 7 Learn It! "[A Transportation Network](#)")
- New Hampshire Town Boundaries, 2018. NH GRANIT Database, Complex Systems Research Center, University of New Hampshire.
- *Map of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut exhibiting the post offices, post roads, canals, rail roads, &c.* Courtesy of Library of Congress. hdl.loc.gov/loc.gmd/g3720.rr000980
- Michael Brindley. *Marking History: First New Hampshire Turnpike In Northwood.* New Hampshire Public Radio. www.nhpr.org/nh-news/2014-01-02/marking-history-first-new-hampshire-turnpike-in-northwood

Additional Resources

- "Cost of Early Railway Freight Movements." Mountaintop Historical Society. www.catskillarchive.com/rrextra/abrw18.Html
- "Economic Impact of the Erie and Chenango Canal." The Farmers Museum. www.harvestofhistory.org/wp-content/uploads/2021/04/DL-Economic-Impact-of-Canals-Activity-Sheet.pdf
- Waterman, W.R. "The Fourth New Hampshire Turnpike." Historical New Hampshire, November 1960.

Standards

“Moose on the Loose” Content:

- ✓ Students will understand that economic activities in New Hampshire were varied and have changed over time with improvements in transportation and technology. (3-5.T4.1)

“Moose on the Loose” Skills:

- ✓ Gathering, Interpreting, and Using Evidence (3-5.S1.2)
- ✓ Communicating and Critiquing Conclusions (3-5.S2.1, 3-5.S2.2)
- ✓ Effective Historical Thinking (3-5.S3.1)
- ✓ Comprehensive Geographic Reasoning (3-5.S4.1)
- ✓ Understanding Economics and Economic Systems (3-5.S5.1)

New Hampshire Social Studies Frameworks:

- ✓ Economics: Economics and the Individual (SS:EC:4:1.2)
- ✓ Economics: Basic Economic Concepts (SS:EC:4:2.2, SS:EC:4:2.3)
- ✓ Economics: Financial Institutions and the Government (SS:EC:4:4.1)
- ✓ Geography: The World in Spatial Terms (SS:GE:4:1.2, SS:GE:4:1.5)
- ✓ Geography: Environment and Society (SS:GE:4:5.5)
- ✓ US / NH History: Contacts, Exchanges & International Relations (SS:HI:4:2.1)
- ✓ US / NH History: Economic Systems & Technology (SS:HI:4:4.1, SS:HI:4:4.2, SS:HI:4:4.3)

NCSS Themes:

- ✓ Theme 2: Time, Continuity, and Change
- ✓ Theme 3: People, Places, and Environments
- ✓ Theme 7: Production, Distribution, and Governance
- ✓ Theme 8: Science, Technology, and Society

C3 Frameworks:

- ✓ Economic Decision Making (D2.Eco.1.3-5, D2.Eco.2.3-5)
- ✓ Exchange and Markets (D2.Eco.3.3-5)
- ✓ Geographic Representations: Spatial Views of the World (D2.Geo.2.3-5)
- ✓ Human Population: Spatial Patterns and Movements (D2.Geo.7.3-5)
- ✓ Change, Continuity, and Context (D2.His.1.3-5)
- ✓ Causation and Argumentation (D2.His.16.3-5)
- ✓ Gathering and Evaluating Sources (D3.1.3-5)
- ✓ Developing Claims and Using Evidence (D3.3.3-5, D3.4.3-5)
- ✓ Communicating Conclusions (D4.1.3-5)

Common Core ELA Grade 3:

- ✓ Key Ideas and Details in Informational Text (RI.3.1, RI.3.3)
- ✓ Craft and Structure in Informational Text (RI.3.4, RI.3.5)
- ✓ Integration of Knowledge and Ideas in Informational Text (RI.3.8)
- ✓ Text Types and Purposes in Writing (W.3.2, W.3.2a, W.3.2b, W.3.2d)
- ✓ Production and Distribution of Writing (W.3.4)
- ✓ Presentation of Knowledge and Ideas (SL.3.4)
- ✓ Vocabulary Acquisition and Use (L.3.6)

Common Core Math Grade 3:

- ✓ Solve problems involving measurement and estimation in Measurement and Data (3.MD.A.2)

Common Core ELA Grade 4:

- ✓ Key Ideas and Details in Informational Text (RI.4.3)
- ✓ Craft and Structure in Informational Text (RI.4.4, RI.4.5)
- ✓ Text Types and Purposes in Writing (W.4.2, W.4.2a, W.4.2b, W.4.2e)
- ✓ Production and Distribution of Writing (W.4.4)
- ✓ Presentation of Knowledge and Ideas (SL.4.4)
- ✓ Vocabulary Acquisition and Use (L.4.6)

Common Core Math Grade 4:

- ✓ Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit in Measurement and Data (4.MD.A.1, 4.MD.A.2)

Common Core ELA Grade 5:

- ✓ Key Ideas and Details in Informational Text (RI.5.3)
- ✓ Craft and Structure in Informational Text (RI.5.4, RI.5.5)
- ✓ Integration of Knowledge and Ideas in Informational Text (RI.5.8)
- ✓ Text Types and Purposes in Writing (W.5.1d, W.5.2, W.5.2a, W.5.2b, W.5.2e)
- ✓ Production and Distribution of Writing (W.5.4)
- ✓ Presentation of Knowledge and Ideas (SL.5.4)
- ✓ Vocabulary Acquisition and Use (L.5.6)

Common Core Math Grade 5:

- ✓ Convert like measurement units within a given measurement system in Measurement and Data (5.MD.A.1)

Lesson Vocabulary

canal	(noun) A manmade waterway
efficient	(adjective) When a person or thing has the ability to accomplish a job in a short period of time and with little effort
fleece	(noun) The coat of wool covering an animal, such as a sheep
Industrial Revolution	(noun) A period of major change in the economy focusing on the change from making things at home to making things in factories
stagecoach	(noun) A horse-drawn passenger and coach that runs on a regular schedule between established stops; used for mail and travel
turnpike	(noun) A road built for heavy travel on which travelers pay a toll