

Granite, Schooners and Fish: How Cape Ann Towns Made a Living: teacher guide

Teacher guide. Keep separate from student materials.

Grade band	Grades 3-5
Subjects	History and Social Science, Geography, English Language Arts
Towns	Rockport, Essex, Gloucester
Duration	Two 45-minute class periods (90 minutes total) (sequence totals 90 minutes)
Prerequisites	Students know the four cardinal directions and can find a compass rose on a map Students have used a map legend and a map title before.; Students have worked in small groups with assigned roles.
Essential question	How did the land and sea around Rockport, Essex and Gloucester shape the work people did there?
Version	1.0, 2026-10-05
Review status	Draft: awaiting classroom teacher review
Lesson ID	CAC - LES - 006

Objectives

Students will be able to:

- locate Rockport, Essex and Gloucester on a current map of Massachusetts and describe where each town is using cardinal directions, the map scale, the legend and the title.
- name the natural resource or feature behind each town's main industry and support it with one fact quoted from a primary source.
- explain at least two ways people in these towns adapted to or changed their environment to do their work.
- describe one way the work of two towns was connected, using evidence from the readings.
- teach their expert topic to classmates in about four minutes and record notes from the other two experts.

Massachusetts curriculum frameworks

Code	Standard (verbatim) and source	How this lesson addresses it
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Code	Standard (verbatim) and source	How this lesson addresses it
3.T1, standard 1	On a current map of Massachusetts, use cardinal directions, map scales, legends, and titles to locate and describe the city or town where the school students attend is located, its local geographic features and historic landmarks, and their significance. History and Social Science Curriculum Framework (2018), Grade 3. Official framework , page PDF p. 53.	Home groups use a current Massachusetts map to find the three towns and describe their locations with cardinal directions, the scale, the legend and the title, then mark the quarries, shipyards and harbor that made each town known.
3.T5, standard 5	Explain the importance of maritime commerce and the practice of bartering – exchanging goods or services without payment in money—in the development of the economy of colonial Massachusetts, using materials from historical societies and history museums as reference materials. a. the fishing and shipbuilding industries b. trans-Atlantic and Caribbean trade, especially the Triangular Trade that included Africans to be sold as slaves in the colonies and goods such as sugar and cotton produced by slave labor to be sold in the colonies and in Europe c. the development of seaport cities of New Bedford, Newburyport, Gloucester, Salem, and Boston History and Social Science Curriculum Framework (2018), Grade 3. Official framework , page PDF p. 56.	Students read primary sources on fishing and shipbuilding, including the Chebacco boats of colonial times, and trace how boats built in Essex carried Gloucester's fishing trade.
4.T4a (The Northeast), standard 4	Develop questions, conduct research, and analyze how people have adapted to the environment of the Northeast, and how physical features and natural resources affected settlement patterns, the growth of major urban/suburban areas, industries or trade. History and Social Science Curriculum Framework (2018), Grade 4. Official framework , page PDF p. 64.	Each expert group studies how people used one natural resource (granite, oak timber and a tidal river, or a harbor near rich fishing grounds) and how they adapted to the shore, for example by building breakwaters from waste stone.
1.T4, standard 1 (shared with grade 2 as 2.T5, standard 1)	Explain the relationship between natural resources and industries and jobs in a particular location (e.g., fishing, shipbuilding, farming, trading, mining, lumbering, manufacturing). History and Social Science Curriculum Framework (2018), Grades 1 and 2. Official framework , page PDF p. 42; grade 2 repeat at PDF p. 48.	This earlier-grade standard names fishing and shipbuilding as industries tied to natural resources; the lesson builds on it and adds quarrying.

Grade 3, Topic 5, standard 5 is about colonial Massachusetts. The Chebacco boat passage reaches back to colonial times, but most sources here describe the 1870s and 1880s, and granite quarrying is not named in any Massachusetts standard. Grade 4, Topic 4a, standard 4 is the closest fit for quarrying. Standard 3.T5.5 suggests using materials from historical societies and history museums; this lesson uses federal reports and an 1878 magazine instead, because museum images and lists could not be cleared for reuse. Teachers can add a museum visit or a guest speaker. The grades 1 and 2 standard is listed as background, not as a grade 3 to 5 target.

Standards checked against the official Massachusetts DESE framework documents on Oct. 5, 2026.

Materials

- A current map of Massachusetts for each home group: a printed state road map or an online map such as the USGS National Map viewer (<https://apps.nationalmap.gov/viewer/>). The map must show a title, a legend, a compass rose or north arrow and a scale.
- Expert cards: one copy of reading R1, R2 or R3 for each student in that expert group (printed from the student handout)
- Reading R4 (the vessel table) for the Schooners experts, and reading R5 for every student
- Expert notes organizer and home group notes organizer (in the student handout)
- Plain paper, pencils and rulers for the sketch map
- Three objects for the warm up: a rough gray stone or a piece of granite, a block of wood and a word card that says FISH
- A timer

Setup

Before Session 1, divide the class into home groups of three (groups of four can share one expert topic). In each home group, assign one Granite expert, one Schooners expert and one Fish expert. Print the expert cards so each student gets only the card for their topic, plus reading R5 for everyone. Set up three expert tables, one per topic. Check that every map has a title, legend, scale and compass rose. If you use an online map, test it on the student devices and show students how to turn on the scale bar. Put the three warm up objects in a bag. Practice reading the old-fashioned words in each card aloud so you can coach the expert groups.

Teaching sequence

5 minutes Session 1. Warm up: Mystery bag

Teacher: Pull out the stone, the block of wood and the FISH card one at a time. Ask: "Where might you find this near the sea? What job could it lead to?" Tell students that three towns on Cape Ann became known for these three things, and today they will become experts on one of them.

Students: Guess what job each object might lead to and share one idea with a partner.

10 minutes Map launch in home groups

Teacher: Give each home group its map. Ask groups to point to the title, the legend, the compass rose and the scale, and to say what each one is for. Then have them find Gloucester, Rockport and Essex. Circulate and ask: "Which direction is Rockport from Gloucester? Which direction is Essex from Gloucester? About how far is each one, using the scale?" Remind students that a direction can be in between, like northeast.

Students: Complete Activity A1 items 1 to 4 together, taking turns as map reader, measurer and recorder.

22 minutes Expert groups read and take notes

Teacher: Send students to their expert tables. Read the first excerpt aloud at each table or have a strong reader do it. Point out the Word helper box. Remind students that the gray box is the writer's own words from long ago and R5 is a short summary written today. Coach groups to fill in every row of the expert notes and to copy one short

quotation exactly.

Students: Read the expert card together, then complete Activity A2 (expert notes).

8 minutes Rehearse and exit ticket

Teacher: Have each expert practice teaching their topic to a partner from the same expert table in under two minutes. Collect the exit ticket.

Students: Rehearse, then write the exit ticket: one fact from your source and the name of the source.

5 minutes Session 2. Recap

Teacher: Return the expert notes. Ask two volunteers to say their exit ticket fact. Explain the plan: each expert teaches, then the group builds a sketch map that shows how the towns' work fit together.

Students: Reread your expert notes and star the two facts you most want to teach.

18 minutes Home groups: experts teach

Teacher: Run a timer: about 5 minutes per expert, plus time to switch. Listen for experts who quote their source and for listeners who ask a question.

Students: Each expert teaches; listeners complete Activity A3 and ask one question per expert.

10 minutes Build the Cape Ann work map

Teacher: Ask each group to draw a simple sketch map using the real map as a guide. Remind them that the legend must use shapes or letters, not only colors, so anyone can read it.

Students: Complete Activity A4: draw the sketch map with a title, a compass rose, a legend and at least two connection arrows.

10 minutes Assessment: Town Work Cards

Teacher: Students work alone. Read the task aloud and point to the checklist.

Students: Complete the assessment task on your own.

2 minutes Close

Teacher: Ask: "If you lived in one of these towns in 1880, which job would you choose and why?" Take two or three answers.

Students: Share one answer.

Background for the teacher

All facts in this lesson come from three public domain sources. Henry Hall's 1884 Report on the Ship-Building Industry, part of the 1880 federal census, says the Chebacco boat took shape at Essex (then called Chebacco), that the boats were first used in fishing at Sandy Bay (now Rockport) and were chiefly owned in Gloucester, and that as late as the Revolutionary War boats of 10 to 20 tons were built away from the water and dragged to the river by cattle (page 7). Hall counts 475 schooners, sloops and boats owned at Gloucester in 1880, of which 218 were built at Essex and 133 at Gloucester (pages 12 to 13). He says Essex "has always lived by ship-building," that nearly all of

Gloucester's clipper fishing schooners were built there and that Essex built schooners of 150 to 260 tons because the river was not large enough for a bigger hull (pages 108 to 109). George Brown Goode's 1887 federal fisheries report says the Essex River is deep enough at high tide to float the largest fishing schooners to the sea and that upwards of 1,200 fishing vessels were built at Essex in the previous 50 years (page 140). The same report calls Gloucester "the chief fishing port of the United States" and says Rockport and some Gloucester villages had large granite quarries opened by people from Quincy (pages 137 and 143). An 1878 Scientific American article describes the Rockport Granite Company's quarries, the uses of the stone and a breakwater that let ships reach the quarries in all weather. The 1880 census report on building stones notes that Cape Ann quarries met their lack of harbors by building breakwaters from waste stone (page 112). Rockport was part of Gloucester until 1840 (Goode, page 141) and Essex separated from Ipswich in 1819 (Goode, page 140). The lesson keeps to these facts. It does not use the Essex Shipbuilding Museum vessel list or any museum images, which are not cleared for reuse.

Handling sensitive topics

This lesson is about work, geography and natural resources. It does not discuss people lost at sea. If students ask whether fishing was dangerous, say yes, many fishermen from Cape Ann were lost at sea, and the towns remember them with memorials such as the Fisherman's Memorial in Gloucester. Keep the answer brief and calm, and let families of fishermen in your class share only if they choose to. Other Cape Ann Classroom lessons for older grades cover remembrance directly.

Discussion prompts

- Why do you think a town with hard granite and a town with a big harbor ended up doing such different work?
- The breakwaters in Rockport were built from waste stone. Why is that a smart idea? Can you think of a problem it might cause?
- Essex had no harbor and a narrow river. How did the shipbuilders make it work anyway?
- The writers of these reports worked for the government in the 1870s and 1880s. What might they notice, and what might they leave out?
- Which of these jobs still happen on Cape Ann today? How could you find out?

Formative checks

- Map check: each home group points to the title, legend, scale and compass rose and states one direction correctly.
- Exit ticket (Session 1): one fact from your expert card and the name of the source it came from.
- Thumbs up, sideways or down: I can explain how one town changed the shore to do its work.
- Teacher listens during teaching time for experts who quote their card and listeners who ask a question.

Assessment

Make two Town Work Cards on your own. Choose two of the three towns. For each town, write (1) the natural resource or feature, (2) the work people did, (3) one way people adapted to the land or sea and (4) one piece of

evidence from a reading, with the reading number. Then write two or three sentences that explain one way the work of your two towns was connected. Checklist: two towns, four parts on each card, one connection with evidence.

Points: 12

Answer guidance

A1

- Titles and legend symbols depend on the map used; accept any accurate answer.
- Rockport is east or northeast of downtown Gloucester, at the eastern tip of Cape Ann. Essex is west or northwest of Gloucester. Accept 'east' and 'west' for younger students.
- Distances depend on the map scale. Accept reasonable straight-line estimates and look for correct use of the scale bar. Note for students that road distances are longer than straight lines.
- Water features: Gloucester Harbor or the Atlantic for Gloucester; Sandy Bay, Pigeon Cove or the Atlantic for Rockport; the Essex River or Ipswich Bay for Essex.

A2

- Granite: resource is hard granite; work is quarrying and cutting stone, including paving stones; stone went to New York docks, the Beacon Hill reservoir in Boston and forts in Boston Harbor (Excerpt A); adapting means building breakwaters, including from waste stone, so ships could reach the quarries (Excerpts A, B and D).
- Schooners: resources are oak forests near the town and the Essex River; work is building fishing boats and schooners; boats went to Gloucester owners; adapting means dragging boats to the river with cattle, building schooners small enough for the narrow river and launching at high tide (Excerpts A, B and C).
- Fish: resources are a large safe harbor and nearby fishing grounds for cod and mackerel, including Georges Bank; work is fishing; adapting includes hauling boats up on ramps at Folly Cove to keep them safe from waves (Excerpt C); the population grew from 7,786 in 1850 to 19,329 in 1880 (Excerpt D).
- Quotations must be copied exactly and labeled with the excerpt letter.

A3

- Notes should match the expert answers above.

- R4 question: Essex built the most (218 of 475). R2 explains why: Essex shipbuilders were known for fast clipper schooners and nearly all of Gloucester's clipper fishing schooners were built there. Strong students also note that Gloucester built 133 of its own.

A4

- Look for a title, a compass rose, the three towns roughly in the right places (Rockport east, Essex west, Gloucester between), and a legend that uses shapes or letters.
- Good connection arrows: Essex shipyards to Gloucester (schooners for the fishing fleet); Rockport quarries to Boston or New York (granite by sea); Chebacco boats from Essex used at Sandy Bay in Rockport; Bay View and Lanesville granite carried by stone sloops.

Rubric

Criterion	4	3	2	1
Resources and work	Correctly names the resource and the work for both towns and explains how one leads to the other.	Correctly names the resource and the work for both towns.	Names the resource and work for one town, or has one error.	Resource or work is missing or incorrect for both towns.
Adapting to the environment	Describes a specific adaptation for each town and explains the problem it solved.	Describes a specific adaptation for each town.	Describes an adaptation for one town, or the adaptations are vague.	No adaptation is described.
Use of evidence	Each card has an accurate fact or quotation with the correct reading number, and the connection is supported by evidence.	Each card has an accurate fact with a reading number.	Evidence is given for one card only or is not labeled.	No evidence from the readings.
Connections between towns	Explains a clear, accurate connection between the two towns and why it mattered.	States an accurate connection between the two towns.	Connection is unclear or only partly accurate.	No connection is given.

Differentiation

Multilingual learners

- Pre-teach the words quarry, schooner, harbor, breakwater and resource with gestures and the three warm up objects.
- Give multilingual learners reading R5 first, then the shortest excerpt on their expert card. Let them read with a partner.
- Allow notes in a home language plus key English words, and provide sentence frames: 'The town of ____ had ____, so people ____.'

- Pair each multilingual learner with a supportive partner in the same expert group.

Students with disabilities

- Read the expert card aloud or provide an audio recording. Students may use text-to-speech.
- Reduce the expert notes to resource, work and one quotation for students who need a shorter task.
- Offer a large-print map or a digital map with zoom. Make sure legend symbols are shapes or letters, never color alone.
- Let students dictate the Town Work Cards or complete them as a labeled drawing with short captions.
- Give advance notice of group changes and a visual timer for students who need predictable transitions.

Advanced learners

- Ask advanced students to compare Rockport's quarries with the granite quarries at Bay View and Lanesville in Gloucester (R1 Excerpt D) and explain why both needed breakwaters.
- Have them use R4 to write two 'how many more' questions for classmates.
- Challenge them to explain how a narrow river limited the size of Essex schooners and what that meant for the kinds of ships Essex could sell.

Print, low-bandwidth and extension options

Print: Print the student handout, which includes all five readings, the organizers and the assessment. Print each expert card on a different paper shape or mark it with a large letter (G, S, F) so groups can sort them without relying on color. A printed state road map works for the map launch.

Low bandwidth: The lesson needs no internet. If you have no maps, ask families or the town library for donated road maps, or project one map and have groups take turns measuring.

Extensions:

- Take a walk to a local breakwater, granite curb or stone wall and try to find out where the stone came from.
- Interview a family member or neighbor who works on the water or in the trades today and compare their work with the 1880s.
- Find Georges Bank on a map of the North Atlantic and use the scale to check the report's '150 miles' claim.

Google Classroom: ready to paste

Assignment title: Granite, Schooners and Fish: Town Work Cards

Student instructions:

Open your copy of the student handout. In Session 1, complete the map launch with your home group and your expert notes with your expert group. In Session 2, take listening notes while your group teaches, draw the Cape

Ann work map with your group, and then complete the two Town Work Cards on your own. Turn in the handout when you finish.

Suggested points: 12

Attach:

- **student-handout.docx:** Make a copy for each student
- **slides.pptx:** Students can view file

Never attach the teacher guide to student work. See [how to use this lesson in Google Classroom](#).

Citations and rights

- "The Rockport Granite Quarries," Scientific American, vol. 39, no. 20 (Nov. 16, 1878), page 314. <https://archive.org/details/scientific-american-1878-11-16>. Public domain (published 1878)
- U.S. Census Office, Report on the Building Stones of the United States and Statistics of the Quarry Industry for 1880 (Tenth Census), page 112. <https://archive.org/details/reportonbuilding00unit>. Public domain (U.S. federal government work)
- Henry Hall, Report on the Ship-Building Industry of the United States (Government Printing Office, 1884), Tenth Census, pages 7, 12 to 13 and 108 to 109. <https://archive.org/details/reportonshipbui00hallgoog>. Public domain (U.S. federal government work, published 1884)
- George Brown Goode and others, The Fisheries and Fishery Industries of the United States, Section II (Government Printing Office, 1887), pages 137 to 144. <https://archive.org/details/fisheriesfishery02good>. Public domain (U.S. federal government work, published 1887)
- U.S. Geological Survey, The National Map viewer (current map for the map launch). <https://apps.nationalmap.gov/viewer/>. U.S. federal government website; used as a classroom map tool, nothing reproduced

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