

WORK THROUGH TIME

Cape Breton Stories of Land & Sea



Grade Primary – Building Wooden Boats

Atlantic Canada Curriculum – Specific Curriculum Outcomes (SCO)

Lesson Plan Based on *Work Through Time* Story:

The Boats of Main-à-Dieu and Area - Mike Targett

Overview: By focusing on the art of wooden boat builders in Main-à-Dieu, Cape Breton, students will gain an appreciation for the work of artisans in their community.

SCO PRIMARY MATH	<p>A2 Count to determine the number in a group</p> <p>B3 Determine how many more one group has than another</p> <p>E2 Develop spatial sense, including eye-motor co-ordination</p> <p>F1 Collect and organize data about issues of personal interest</p> <p>F3 Interpret and create real and picture graphs</p>
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PRIMARY SCO GYM	Select and respond to music of different tempos to stimulate locomotor movements.
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PRIMARY SCO ART	<p>4.1.1 Show respect for their own work and that of others</p> <p>4.2.1 Share and talk about their art</p> <p>5.1.1 Discover art as a way of expressing ideas</p> <p>5.2.1 Explore language that is used to talk about art</p> <p>5.3.1 Explore art from a variety of cultural/historical contexts</p> <p>6.3.1 Explore art and artists within their community</p>
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PRIMARY SCO LANGUAGE	<p>2.4 Engage in simple oral presentations and respond to oral presentations and other texts</p> <p>4.1 Regard reading/viewing as sources of interest, enjoyment, and information</p> <p>4.2 Understand basic concepts of print including directionality, word, space, letter, and sound</p> <p>4.4 Engage in reading or reading-like behaviour as they experience a variety of literature</p> <p>5.1 With assistance, interact with a variety of simple texts</p>
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	<p>(e.g., pictures, computer software, videotapes, non-fiction) as well as human and community resources</p> <p>6.2 Express opinions about texts and the work of authors and illustrators</p> <p>8.1 Understand that print carries a message</p> <p>8.2 Use writing and other forms of representing to convey meaning (communicating messages, recounting experiences, expressing feelings and imaginative ideas, exploring learning)</p> <p>10.1 Begin to develop strategies for pre-writing, drafting, revising, editing and presenting</p> <p>10.2 Use some conventions of written language</p> <p>10.3 Demonstrate engagement with writing and other forms of representation</p>
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PRIMARY SCO SCIENCE	<ul style="list-style-type: none"> • Exploring Sand and Water with Our Senses • Exploring Moving Things with Our Senses (Exploring with Ramps, Rollers, and Slider, Investigating with Ramps) <p>100-2 Explore and select different ways to represent ideas, actions, and experiences, and to communicate with others</p> <p>101-2 Identify and explore ways to use tools to help carry out a variety of useful tasks</p> <p>200-1 Ask questions that lead to exploration and investigation</p> <p>200-4 Select and use materials to carry out their own explorations</p> <p>201-1 Follow a simple procedure where instructions are given one step at a time</p> <p>201-2 Manipulate materials purposefully</p> <p>201-4 Observe, using one or a combination of the senses</p> <p>203-1 Communicate questions, ideas, and intentions while conducting their explorations</p> <p>203-2 Identify common objects and events, using terminology and language that others understand</p>
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PRIMARY SCO SOCIAL STUDIES	<p>E.1.4 Demonstrate an understanding that the need for co-operation is an important part of being a member of a formal and informal group</p> <p>E.3.2 Use basic mapping skills to identify, locate, and name familiar places within the community</p> <p>E.3.3 Identify connections between their community and other communities (local, national, and global)</p>
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PRIMARY SCO MUSIC	3.3.1 Explore songs and games of Atlantic Canada
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PRIMARY SCO TECHNOLOGY	BOC 6.1 Safely use school media and computer equipment and software to support their learning, with growing independence (relates to 3.1)
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PRIMARY SCO HEALTH	D2.1 Identify and practice thoughtful and caring behaviours in the classroom
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NOVA SCOTIA BOOK BUREAU

The Nova Scotia School Book Bureau is responsible for the distribution of learning resources and related products to support teaching and learning and to ensure availability in a cost-effective manner to Nova Scotia schools. Resources may be searched by level, topic and subject area.

Many resources appropriate for this lesson are available through the Nova Scotia Allocated Learning Resources (ALR) at the Nova Scotia School Book Bureau (NSSBB).

Please visit: https://w3apps.ednet.ns.ca/nssbb/search_alr.asp

Nova Scotia School Book Bureau, 10 Acadia St, Dartmouth NS B2Y 4H3
Phone: (902) 424-5516, Fax: (902) 424-0545, E-mail: nssbb@gov.ns.ca

SUGGESTED VIDEO RESOURCES

National Film Board (NFB): In January 2009, the NFB launched its online Screening Room, offering Canadian and international web users the ability to stream hundreds of NFB films for free. It was created as part of a project to digitize the NFB's collection of films. Over 700 films are free and the remainder may be viewed by subscription.

The cost of subscription for one teacher is \$19.95 and \$99 for an elementary school. Please visit: <http://www.nfb.ca/education/en/>

World Wide Web: You Tube (<http://www.youtube.com/>) and Google Video (<http://video.google.ca>) have many short videos that may be relevant to this lesson.

Discovery Education: Has thousands of videos for boards that subscribe to this resource (password protected). Please visit: <http://streaming.discoveryeducation.com/>

NS Dept of Education LRT videos:

Please visit: <http://lrt.ednet.ns.ca/>

Master Boat Builder Video # V2117

This *Land and Sea* episode features Harry Bryan. Harry builds wooden boats in his workshop by a little cove in Passamaquoddy Bay in southern New Brunswick. He has taught himself the art of wooden boatbuilding and now produces some of the finest wooden boats. *Land and Sea* visits his workshop where Harry works without electricity, using hand tools and bicycle driven power (watch selected parts).

Sherbrooke Village Video # N3263

Selection of photographs showing boat building at Sherbrooke Village, Sherbrooke, Nova Scotia.

MUSIC RESOURCES

Lukey's Boat is Painted Green – Great Big Sea

I'se the Bye That Builds the Boat – Multiple Artists

Celtic Music: <http://www.celticmusicsite.com/research/links.htm>

BACKGROUND

Begin the lesson by telling students there are many art forms through which culture, emotions and opinions can be expressed. Discuss different types of artistic expression they may have been exposed to in their community.

Watch the slide presentation of boatbuilding in Main-à-Dieu and explain how these craftsmen expressed their skills through the art of boatbuilding. This story illustrates the craft of building wooden boats by hand from local material. Each boat was unique and fishermen were able to immediately recognize at first glance who had built it. The boats were named and always referred to as 'she' and 'her'. The front of the boat is called the bow, the back the stern and the very bottom is the keel. When the boat was finished it was rolled across the beach to the water on log rollers. This was much easier than hauling the boat over the sand and gravel on the beach.

IMPLEMENTATION STRATEGIES

LESSON PLAN ONE: SLIDE SHOW PRESENTATION

- Approximate lesson time: 10-15 minutes plus discussion time
- Materials needed: PowerPoint slide show, LCD projector for class viewing or individual computers for small group viewing, map of Nova Scotia
- View the accompanying slide show based on the *Work Through Time* story *Boat Building in Main-à-Dieu*. Students may view as a class or individually. Discussion to follow may center on the skill needed to build a boat.

Slide Show: <http://www.workthroughtime.ca/Educational/index.php>

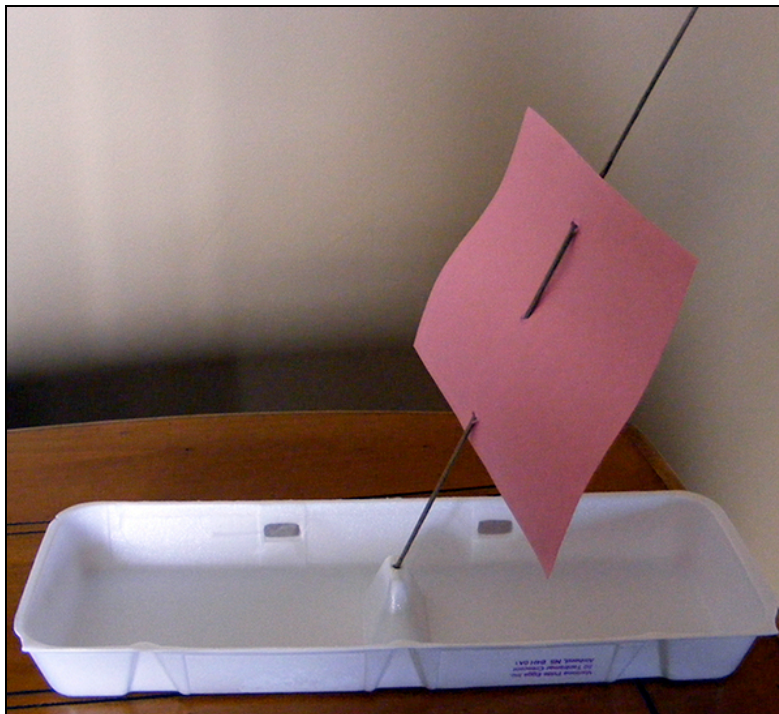
- Find Main-à-Dieu on a map of Cape Breton or Google Earth

LESSON PLAN TWO: INVITE AN ARTISAN TO CLASS

- Approximate lesson time: 20 to 30 minutes
- Materials needed: Stationary supplies, art supplies
- Invite an artist to class to extend students' understanding of the variety of artistic expressions. Explain the connection between art and boat building, for example, carving and fine carpentry. Students may individually or as a class make a poster, card or note to thank the visitor for their contribution to class.

LESSON PLAN THREE: CREATE A BOAT

- Approximate lesson time: 45 minutes
- Materials needed: The lid of a Styrofoam egg carton, construction paper, scissors, hole punch or sharp pencil, straw or stick for mast, paints, crayons or markers, tape
- Tape over any holes that may be on the side of the egg carton cover. Cut construction paper to 10 cm x 15 cm for the sail. Punch 2-3 holes along the middle of the paper (see illustration) and decorate the sail. Weave the straw or stick through the holes in the sail. Paint/color the egg carton lid. Attach the sail to the boat with tape. Name your boat and print the name with a marker on both sides of the bow (front) and on the stern (back). As they work on the boats the students can listen to music pertaining to the sea (sea shanties, ballads or fiddle music of Atlantic Canada) that would have been familiar to the boat builders in Main-à- Dieu.
- With a digital camera keep a record of the children during construction for a later activity.



Boat that has been constructed but needs decoration(s)

LESSON PLAN FOUR: DANCE OF WAVES

- Approximate lesson time: 5 minutes
- Materials needed: Music source for dancing
- During breaks students can choreograph a dance to portray their boat sailing through the ocean waves.

LESSON PLAN FIVE: BOAT LAUNCH

- Approximate lesson time: 30 minutes
- Materials needed: Round tooth picks (preferably blunted), round pencils, dowels, ramp, digital camera, boats made in previous lesson
- Definitions: A ramp is a simple machine which helps lift a heavy object using less force than would be expended if lifting it straight up. A roller is a cylinder.
- Explain to class that boats are heavy items which need the help of simple machines to be launched into the water. Children can experiment using various rollers (pencils, round tooth picks, blunted bamboo skewers, etc.) to convey their boat to the water (kiddy pool).
- Use a ramp (cardboard, wood or whatever convenient material is available) to ease the boat up to the edge of the pool and down into the water. Discuss how this would make less work when moving an actual size boat.
- Record the process of events with a digital camera.

LESSON PLAN SIX: BOAT RACES

- Approximate lesson time: 30 to 45 minutes

- Materials needed: Kiddy pool, graph template (see Appendix One), boats made in Lesson Plan Five, digital camera
- Using the same pool used to launch the boats students can individually race their boats on a route across the pool by blowing on the sail or using a fan for propulsion. If outdoors, wind power may help if conditions are suitable. The teacher can record time taken to navigate a specified distance and students can make a pictorial graph to represent the times each craft took to cross the pool.
- Record the process of events with a digital camera.

LESSON PLAN SEVEN: HOW MUCH CARGO?

- Approximate lesson time: 30 minutes
- Materials needed: Stationary supplies, pennies, boat, digital camera
- Choose one craft and estimate how many pennies can be put in the boat before it sinks. Ask students to write their estimate on a chart or whiteboard. Students can take turns dropping one penny in the boat counting as they drop them in. When the boat tips over calculate how many pennies each student was away from the correct answer, plus or minus.
- Record the process of events with a digital camera.

LESSON PLAN EIGHT: SLIDE SHOW WITH AUDIO

- Approximate lesson time: 15 minutes
- Materials needed: Computer with PowerPoint, digital pictures taken in previous lessons, microphone
- Using the pictures taken during construction, boat launch and sailing, the teacher or 'Book Buddies' (students from higher grades), will make a slide show of the building process and Primary students will supply the audio narration.

LESSON PLAN NINE: MAKE A BOOK

- Approximate lesson time: 30 to 45 minutes
- Materials needed: Stationary supplies
- The children can make a repeating pattern book and illustrate the book with their drawings. Use simple sentence starters such as: "My boat is ..." and "My boat can ..."
- Stories may be shared by reading to the class, a partner or a "Book Buddy" from an older class.

FOLLOW-UP ENRICHMENT

- Have students paint a picture of their boat.
- Have students draw a boat and label the parts.
- Explore various simple craft patterns and experiment with the designs determining how well each will float and how much cargo they can carry.
- Listen to:

Lobster Fishing on the Susan B

<http://www.parl.ns.ca/ebooks/susan-b.htm>

EVALUATION

Use observation, anecdotal records and work products as methods of assessment.

LINKS TO SUPPORTING INFORMATION

(1) Audio book 'Lobster Fishing on the Susan B'

<http://www.parl.ns.ca/ebooks/susan-b.htm>

(2) Sailboat crafts for kids

<http://www.create-kids-crafts.com/sailboat-crafts-for-kids.html>

(3) Puddle boat craft

<http://jas.familyfun.go.com/arts-and-crafts?page=CraftDisplay&craftid=10702>

(4) Jet boat craft

<http://jas.familyfun.go.com/arts-and-crafts?page=CraftDisplay&craftid=10746>

(5) Buoyant boats science net links

<http://www.sciencenetlinks.com/Lessons.cfm?DocID=143>

(6) Foil boat craft

<http://www.new-sng.com/foilboat.cfm>

(7) Foil boat craft

<http://www.members.shaw.ca/applytech/at/foil.htm>

(8) Building a boat step by step

<http://www.dc004.com/oct.html>

(9) Lyrics to Lukey's Boat by Great Big Sea

<http://www.lyrics4all.net/g/great-big-sea/up/lukey.html>

APPENDICES

APPENDIX ONE: GRAPH TEMPLATE
