

FOLLOW THE LIGHTS

Note to teachers: This supplement includes a discussion guide, lessons and Michigan Content Standards to use with the Michigan Time Traveler page. You may reproduce the pages in this supplement to use with students. Follow the Time Traveler link on the Michigan Historical Center's Teacher's Stuff page to the on-line version of this Teacher's Guide for extra pages that include selected Web resources and bibliographies of books for reference and student reading: <http://www.michiganhistory/museum/techstuff/>.

DISCUSSION GUIDE

(SOC.1.3. Analyze and Interpret the Past; SOC.1.1. Time and Chronology; ELA.3. Meaning and Communication in Context)

- **Look Inside a Lighthouse.** Using the 1873 architectural diagram of the Little Sable Point lighthouse, ask students to identify its various parts and tell their uses. If this was all they knew about lighthouses, what assumptions would they make about the work of a lightkeeper?
- **What Is a Lighthouse?** What is the purpose of a lighthouse? What sources of energy kept lighthouse lamps burning yesterday and today.
- **Two Michigan Lighthouses.** Describe the Copper Harbor and the Tawas Point lighthouses. Which would have been most like the Little Sable Point lighthouse? (Tawas) Both lighthouses are now in state parks where they can be visited by tourists and campers. Have students locate them on a map and write directions to get to them from your town. Use the Web or other sources to find out how other lighthouses are now used (homes, museum, bed-and-breakfasts). Brainstorm other uses for lighthouses. Discuss how they might be implemented.
- **Saving Lives.** Discuss these words from the reports if they are new to students. Then ask students to tell the stories of the August 23 and May 30 rescues in their own words. Discuss: Why is boating safety still an important issue on the Great Lakes today?

Drilling: training, practicing repeatedly

Foremast: the mast nearest the bow of a ship

Gale: strong storm with winds of 32 to 63 miles per hour

Hawser: a large rope for towing, mooring, or securing a ship

Rods: units of measurement with one rod equal to 5.5 yards or 16.5 feet or 5.029 meters

Rudder: a flat piece of wood or metal attached upright to the stern and used to turn a boat

Schooner: a fore-and-aft rigged sailing vessel with (usually) 2 masts (foremast and mainmast)

Surf-boat: a boat built for use in heavy waves

Main topmast: topmost sail on the mainmast

Tug: tugboat, a strongly built powerful boat used for towing and pushing

Unstepped: a mast leaning or fallen over because its lower end is out of the frame (step) supporting it

Yacht: large recreational watercraft

- **Flashes from Michigan Lighthouse History.** Use a map to locate the places mentioned in these important dates from Michigan maritime history. Why would lights or fog signals been important for each location mentioned? What did it mean that a lighthouse was "automated?"

ACTIVITY ONE: Make a Lighthouse Time Line

(SOC.1.3. Analyze and Interpret the Past; SOC.1.1. Time and Chronology)

Make a lighthouse time line for your classroom. Ask students to choose a Michigan lighthouse and research it using the school library and/or the Internet. Have students do the following after completing their research: (1) trace (enlarge for an 8.5" x 11" sheet of paper) the outline of the lighthouse leaving the interior blank; (2) print the name, location and date it was constructed in the lighthouse on the sheet; (3) present a brief oral report about the lighthouse; (4) then hang or tape the sheet in its proper construction date sequence around the classroom.

ACTIVITY TWO: Learning Literary Terms Through Lighthouses

(SOC.VI.2. *Comprehending the Past*; ELA.2. *Meaning and Communication: Writing*; ELA.5. *Literature*; ELA.8. *Genre and Craft of Language*)

Writers often feature lighthouses in prose and poetry. They give lighthouses an atmosphere of mystery or romanticism. Lighthouse literature offers opportunities to teach literary terms, especially personification, metaphor and simile. Put these three terms on the board with space to write under each.

Personification: Treating an object as though it were a human being.

Metaphor: An implied comparison of two things.

Simile: An explicit comparison of two things, usually using the word “like” or “as.”

Copy Henry Wadsworth Longfellow’s poem, “The Lighthouse,” (page 3) for each student. Longfellow (1807-1882) was born in Portland, Maine, a harbor town, and also lived in Brunswick, Maine, and in Boston. He sailed to Europe several times and was familiar with the ocean. “The Lighthouse,” originally printed in *The Seaside and the Fireside* in 1850, is one of his poems that features the sea.

Ask students to read the poem on their own or read it to the class with students following along. After reading, ask students to find places where Longfellow has the lighthouse doing things a person might do. List them under **Personification** on the board. Examples: line 3: Lighthouse lifts; 16: Holding its lantern; 19: wading far out; 52: hails the mariner. You can find other examples of personification—for the waves (line 8: In the white lip and tremor of the face), for ships (24: They wave), the ocean (37: to its bosom clasp the rocks) and a hurricane (44: press the great shoulders). Next, ask students to find lines where Longfellow implies a comparison of two things, such as “The lighthouse...a pillar of fire” (lines 3-4) or “A new Prometheus” (line 49). Add their examples under **Metaphor** on the board. Do the same with **Simile**, letting students find “Like the great giant Christopher” (line 17), “shake it like a fleece” (line 40). After discussing “The Lighthouse,” ask students to write a poem of their own about a lighthouse, including at least one use of personification, metaphor and simile.

Other Longfellow poems to share with your class include “The Wreck of the Hesperus,” “The Tide Rises, The Tide Falls,” “The Fire of Driftwood,” “The Sound of the Sea,” “The Tides,” “Seaweed,” “The Secret of the Sea,” “A Summer Day by the Sea.” They are available in poetry anthologies at the library and, because they are in the public domain, can be found on poetry Web sites.

ACTIVITY THREE: Where Would You Put a Lighthouse? A Map Activity

(SOC.I.3. *Analyze and Interpret the Past*; SOC.II.3. *Location, Movement and Connections*; SOC.II.4. *Regions, Patterns, and Processes*)

For this activity, use the classroom map of Michigan or provide groups of students with Michigan Department of Transportation maps. Ask students to locate the Lake Huron coast of Michigan between Port Huron and Presque Isle. Ask students to pretend that they are sailors during the late 19th or early 20th century. Remember that their boats were not large, so they would be sailing near the coasts when possible. Although they cannot see underwater dangers such as reefs, What are the dangers they would need to watch for? (islands, points of land that reach out into the lake, entrances to ports) Where could they find safety? (harbors, ports) With these in mind, where would they put lighthouses. Most lights could only be seen 10-15 miles, so ask students to use a ruler and the map’s legend to figure approximate distances in their lighthouse plan. Ask each group to present its plan and reasons for its choices. Distribute the 1905 map of lighthouses (page 4) and have students compare their plans with the actual sites. Point out the “harbor of refuge” at Sand Beach (now Harbor Beach) to students. Explain that the Coast Guard spent nearly \$1 million to build an artificial harbor there in the 1880s because the sailing distance was so great between the two safest places in a storm: Port Huron and Saginaw Bay.

The Lighthouse

by Henry Wadsworth Longfellow

The rocky ledge runs far into the sea,
And on its outer point, some miles away,
The lighthouse lifts its massive masonry,
A pillar of fire by night, of cloud by day.

Even at this distance I can see the tides,
Upheaving, break unheard along its base,
A speechless wrath, that rises and subsides
In the white lip and tremor of the face.

And as the evening darkens, lo! how bright,
Through the deep purple of the twilight air,
Beams forth the sudden radiance of its light
With strange, unearthly splendor in the glare!

No one alone; from each projecting cape
And perilous reef along the ocean's verge,
Starts into life a dim, gigantic shape,
Holding its lantern o'er the restless surge.

Like the great giant Christopher it stands
Upon the brink of the tempestuous wave,
Wading far out among the rocks and sands,
The night o'ertaken mariner to save.

And the great ships sail outward and return,
Bending and bowing o'er the billowy swells,
And ever joyful, as they see it burn,
They wave their silent welcome and farewells.

They come forth from the darkness, and their sails
Gleam for a moment only in the blaze,
And eager faces, as the light unveils
Gaze at the tower, and vanish while they gaze.

The mariner remembers when a child,
On his first voyage, he saw it fade and sink;
And when, returning from adventures wild,
He saw it rise again o'er ocean's brink.

Steadfast, serene, immovable, the same
Year after year, through all the silent night
Burns on forevermore that quenchless flame,
Shines on that inextinguishable light!

It sees the ocean to its bosom clasp
The rocks and sea-sand with the kiss of peace;
It sees the wild winds lift it in their grasp
And hold it up, and shake it like a fleece.

The startled waves leap over it; the storm
Smites it with all the scourges of the rain,
And steadily against its solid form
Press the great shoulders of the hurricane.

The sea-bird wheeling round it, with the din
Of wings and winds and solitary cries,
Blinded and maddened by the light within,
Dashes himself against the glare, and dies.

A new Prometheus, chained upon the rock,
Still grasping in his hand the fire of Jove,
It does not hear the cry, nor heed the shock,
But hails the mariner with words of love.

"Sail on!" it says, "sail on, ye stately ships!
And with your floating bridge the ocean span;
Be mine to guard this light from all eclipse,
Be yours to bring man nearer unto man."

From: *The Seaside and Fireside*, Boston, 1850.

Words to Know:

Christopher: former Christian saint who, according to folklore, carried the weight of the world in the form of a small child across a river; patron saint of travelers

Eclipse: darken

Jove: Jupiter, the chief Roman god in mythology or Zeus, the chief Greek god

Mariner: sailor

O'er: over

Perilous: dangerous

Prometheus: in mythology, a Titan who is chained and tortured by Zeus, the chief Greek god, for stealing fire from heaven and giving it to people

Quenchless: unable to be extinguished

Reef: a chain of rocks at or near the surface of the water

Tempestuous: stormy

Wrath: anger

Eleventh Light-House District

This is a section of the map of the Eleventh Light-House District in 1905. At this time the district extended from the mouth of the River Rouge, Detroit River, Michigan, to the westerly end of Lake Superior. It embraced all aids to navigation on the United States' shores and waters of lakes St. Clair, Huron, and Superior, the upper part of the Detroit River, the St. Clair and St. Marys rivers, and that part of the Straits of Mackinac lying to the eastward of a line drawn across the straits just to the eastward of Old Mackinac Point Light-Station, Michigan.



KEY

- Light
- ⊙ Light and fog signal
- X Lighted buoy
- Light-house depot
- ↔ Range light

LIGHTS

(The circles indicate the ranges of visibility and characteristics of important lights.)

- Fixed white — — — White flash — — —
- Fixed red = = = Red flash = = =

SOURCE: *Annual Report of the Light-House Board to the Secretary of Commerce and Labor*, June 30, 1905. Washington: Government Printing Office, 1905.

Selected Great Lakes Lighthouse Resources

BOOKS FOR LIBRARY OR CLASSROOM

- Hyde, Charles K. *The Northern Lights: Lighthouses of the Upper Great Lakes*. Lansing, MI: Two Peninsula Press, 1986.
- James, Barry. *Lighting the Way: A History of the Copper Harbor Lighthouse*. Copper Harbor, MI: Fort Wilkins Natural History Association, 1999.
- Penrose, Laurie, and Bill Penrose. *A Traveler's Guide to 116 Michigan Lighthouses*. Davison, MI: Friede Publications, 1992.

STORIES ABOUT LIGHTHOUSES FOR YOUNG READERS

- Fleming, Candace. *Women of the Lights*. Morton Grove, Ill. : Albert Whitman & Co., 1996. (nonfiction, ages 9-12)
- Gibbons, Gail. *Beacons of Light: Lighthouses*. NY: Morrow Junior Books., 1990. Easy-to-read explanations and pictures present an introduction to lighthouses and how they work. (nonfiction, ages 4-8)
- Hesse, Karen. *A Light in the Storm: The Civil War Diary of Amelia Martin, Fenwick Island, Delaware, 1861*. NY: Scholastic Trade, 1999. In 1860 and 1861, 15-year-old Amelia works in her father's lighthouse on an island off the coast of Delaware and writes about the effects of the Civil War in her diary. (fiction, ages 9-12)
- Hopkinson, Deborah. *Birdie's Lighthouse*. NY: Atheneum Books for Young Readers, 1997 (Aladdin Paperbacks, reprint edition, 2000). The diary of a ten-year-old girl who moves with her family in 1855 from a town on the Maine coast to rugged Turtle Island where her father is to be the lighthouse keeper. (fiction, ages 4-8)
- Pfitsch, Patricia Curtis. *Keeper of the Light*. NY: Simon & Schuster Books for Young Readers, 1997. After her father dies in 1872, Faith takes over his job as lighthouse keeper on Lake Superior, until mother moves them to town, where Faith is unhappy. She returns to the lighthouse as a storm rages. (fiction, ages 9-14)
- O'Hara, Megan. *Lighthouse: Living in a Great Lakes Lighthouse, 1910 to 1940*. Mankato, Minn. : Blue Earth Books, 1998. Historical documents and records help tell about the life and work of the keepers who lived at Split Rock Lighthouse located on a rocky cliff overlooking Lake Superior in Minnesota. (nonfiction, ages 9-12)
- Roop, Connie, and Peter Geiger Roop. *Keep the Lights Burning, Abbie*. Minneapolis, MN: Carolrhoda Books, 1987. In 1856, the lightkeeper's daughter Abbie must keep the light burning when her father cannot get back to their island off the coast of Main during a storm. (fiction, ages 4-8)

WEB SITES

Great Lakes Lighthouses: Photos, Tours, Descriptions

Beacons Shining in the Night: The Lighthouses of Michigan, Clarke Historical Library
<http://www.lib.cmich.edu/clarke/lhfirst.htm> (Click on “Chronology” for good time line.)

Built in America: Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER), 1933-Present (Click on “Search LC-HABS/HAER Catalog by Keyword.” Use keywords: lighthouse, Michigan.
<http://lcweb2.loc.gov/ammem/hhhtml/hhhome.html>

Copper Harbor Lighthouse Complex
<http://www.michiganhistory.org/museum/musewil/chlight.html>

Grand Traverse Lighthouse Museum, Northport
<http://www.grandtraverselighthouse.com/>

Great Lakes Lighthouse Keepers Association
<http://gllkkeepers.virtualave.net/index.html>

Legendary Lighthouses, PBS Online
<http://www.pbs.org/legendarylighthouses/index.html>

Lighthouses: A Photographic Journey, Internet Public Library
<http://www.ipl.org/exhibit/light/>

Michigan Maritime Museum, South Haven
<http://www.michiganmaritimemuseum.org/>

Michigan’s Historic Sites Online (Take the “Photo Tour” of 22 selected Michigan lighthouses or use the “Search Wizard” to search among the 50+ lighthouse related sites that are on the National Register of Historic Places or have a Michigan Historical Marker.)
<http://www.michiganhistory.org/preserve/michsite>

Midwest Connection: Lighthouses
<http://www.midwestconnection.com/Lighthouses/LHhome.htm>

Seeing the Light: The Lighthouses of the Western Great Lakes, Terry Pepper
<http://www.terrypepper.com/lights/index.htm>

How Does a Lighthouse Work?

Anatomy of a Lighthouse
<http://www.geocities.com/lighthousepage/other/anatomy.html>

How Does It Work? — Lighthouses. Molecular Expressions, Science, Optics & You
Teacher page: <http://micro.magnet.fsu.edu/optics/activities/teachers/lighthouses.html>
Activity page: <http://micro.magnet.fsu.edu/optics/activities/lighthouses.html>

Lighthouses, Lightships and Aids to Navigation (U.S. Coast Guard)
http://www.uscg.mil/hq/g-cp/history/h_lhindex.html

Science Makes a Better Lighthouse Lens, *Smithsonian Magazine*
http://www.smithsonianmag.si.edu/smithsonian/issues99/aug99/object_aug99.html

Other Educational Lighthouse-related Sites

BoatSafe Kids
<http://www.boatsafe.com/kids/index.htm>

Chronology of Aids to Navigation and the United States Lighthouse Service, 1716-1939
by Truman R. Strobridge, Former U.S. Coast Guard Historian
www.uscg.mil/hq/g-cp/history/h_USLHSchron.html

Lighthouse Links
<http://www.harbourlights.com/links/education.htm>

Michigan Lighthouse Conservancy
<http://www.michiganlights.com/index.htm>

National Lighthouse Museum, New York City
<http://www.lighthousemuseum.org/>

Pigeon Point Lighthouse Virtual Tour
http://www.parks.ca.gov/default.asp?page_id=21959

Ports & Education, American Association of Port Authorities
<http://www.aapa-ports.org/education/>

Sand Island Keeper's Log
<http://www.nps.gov/apis/log/sandloga.htm>

Teacher's Lighthouse Resource for Grades K-4
http://www.uscg.mil/hq/g-cp/history/WEBLIGHTHOUSES/lighthouse_curriculum.html

Teacher's Resource for U.S. Coast Guard History
<http://www.uscg.mil/hq/g-cp/history/teachersHistory.html>

U.S. Life-Saving Service Heritage Association
<http://www.uslife-savingservice.org/>

The United States Life-Saving Service in Michigan
<http://www.michiganlights.com/LSSHome.htm>