

Sentinel on the Sand

Note to teachers: This supplement includes a discussion guide, lessons and Michigan Content Standards to use with the Michigan Time Traveler Kids' History page published in the *Lansing State Journal* on May 12, 2004. You may reproduce the pages in this supplement to use with students.

DISCUSSION GUIDE

(SOC.1.2. *Comprehend the Past*; SOC 1.3. *Analyze and Interpret the Past*; ELA.1. *Meaning and Communication in Context*)

Words to Know

Flatt (flat): A sand bar or bank or ridge of sand that builds up near the surface of the water as wind and waves deposit sand

Fresnel lens: a lens that has a surface consisting of a concentric series of simple lens sections so that a thin lens with a short focal length and large diameter is possible. It is named for Augustin J. Fresnel, its French inventor. The size of the lens is ranked by "orders" from 1st (largest) to 6th (smallest). The first three orders were used for seacoast lights with the smaller lights used for harbors and bays. (Pronounce: Frä-'nel.)

Harbor of Refuge: a small bay or other sheltered part of a larger body of water protected and deep enough to furnish anchorage for ships or other craft in a storm

Mooring: Securing a boat in place with anchors or with ropes tied to a buoy.

Parapet: a low wall or railing that protects the edge of a platform

Whitewash: To "paint" with whiting (a mixture of lime, water and sizing) to give a white finish to a surface

A Harbor of Refuge. After reading this section and studying the aerial map of Tawas Point, discuss why Tawas Bay is a good "Harbor of Refuge." Why would a lighthouse be necessary there? (guide boats into the bay without going aground on the point) When did the first lighthouse begin operating? (1853) How long did it use lamps and reflectors before it got a Fresnel lens? (3 seasons)

Sands Shift, Lighthouse Moves. What happened to Tawas Point after the first lighthouse was built? (Sand deposits made it larger.) What effect did this have on the lighthouse? (Further inland, it was harder for sailors to see.) What made the 1876 lighthouse "better?" (taller tower; larger lens added in 1891; fog signal added in 1899.) How is the lighthouse used today? (part of a state park; exhibits will tell its history)

Cleaning, Painting, Running Signal. Name some of the lightkeeper's duties. (tend light, clean, paint, polish, get mail and supplies.) What kinds of structures did he maintain? (tower, house, barn, privy, oil house, boathouse, icehouse, fog signal, boardwalk) What types of activities were part of lighthouse keeper Samuel Palmer's week 100 years ago? (See journal entries on page.)

Tawas Point Lighthouse Facts. What is similar about the Tawas Point, Au Sable Point and St. Helena Island lights? (The tower and keeper's house are connected.) To help students estimate the size of the structure, use buildings and spaces around your school to walk off and illustrate the dimensions provided. For example, compare the height of the tower to the school height, to the length of the swimming pool or to the width of a football field. Use masking tape or a rope to mark circles on a floor or playground to illustrate the diameter of the tower and the thickness of its walls and air space.

ACTIVITY TWO: Journal Styles

(SOC.1.2. *Comprehend the Past*; ELA.3. *Meaning and Communication in Context*; ELA. 10. *Ideas in Action*)

DISCUSS: After students read and discuss the "Cleaning, Painting, Running Signal" article—including the excerpt from Palmer's journal—distribute copies of the excerpt from "Keeper Brown's Journal," page 3. Tell students that Palmer, the lighthouse keeper since 1887, became ill in 1910. He took a leave of absence and moved into town to recuperate. He died that year. James W. Brown, the 1st assistant keeper since 1909, filled the keeper's position until a new keeper was appointed. After Herbert N. Burrows was assigned to replace Palmer, Brown returned to his 1st assistant keeper position until 1913. This handout is a transcription of the journal Brown kept while serving as keeper.

Read and discuss Brown's journal entries. Ask students to identify differences in the two keepers' styles. Some things they may notice include:

- Weather: Palmer records the temperature and barometer and mentions the weather daily; Brown does not.
- Details: Palmer is more specific about the types of work done; Brown is sometimes vague ("ordinary duties," "general inspection"). Palmer's entries are longer.
- Names: Neither mentions the names of the assistants with whom they work.

DO: Tell students that as “Classroom Keepers” they will keep a journal of the activities of their class (as a whole) for one week. Each entry should tell the major activities of the day—including the weather as it may affect their outdoor class activities or their journey between home and school. Each day’s entry should be only 2-3 lines long. At the end of the week, have students share their journals with the class, comparing entries for each day. Find entries that illustrate style differences and discuss:

- No entries are “wrong.” Students each record events through their own way of viewing life.
- The fact that a journal entry is short or long will not necessarily make it better than another.
- Keepers wrote journals as records of their work. They were sent to the Light-House Board for review. Some journals were more useful than others. If the students’ journals had been written for someone else, how might each of these people find their journals useful: you, their teacher; the school principal; a parent; a newspaper reporter writing about local schools; a historian 100 years from now?

ACTIVITY THREE: Compare Two Lighthouses

(SOC.1.2. Comprehend the Past; ELA.1. Meaning and Communication: Reading; ELA. 11. Inquiry and Research)

In 1999 the Cape Hatteras Lighthouse, the nation’s tallest brick lighthouse, was in the news. Located on a barrier island—Hatteras—off the coast of North Carolina, the tower was at risk of falling into the sea. The Tawas Point and Cape Hatteras lighthouses each protect sailors from land that juts out into water, known as a point or a cape. Although sand added to Tawas Point made the light farther from the coast and harder to see, the sand near the Cape Hatteras tower was eroding. Modern technology had made the lighthouse less vital for navigation. But it still served as a marker for ships and was a well-loved historic building. After studying the erosion problem, the National Park Service physically moved the tower 2,900 feet inland. Ask students to research the Cape Hatteras Lighthouse using the school library, encyclopedia and the Web. (Cape Hatteras National Seashore, Nat. Park Service: www.cr.nps.gov/maritime/nhl/capehatt.htm; www.nps.gov/caha/capehatteras.htm; www.nps.gov/caha/lrp.htm) Make side-by-side columns on the chalkboard or an overhead transparency for the two lighthouses. Using their research on Cape Hatteras and the Michigan Time Traveler page about Tawas Point, have students contribute information for these attributes: Location (city, state), body of water guarded, year 1st lighthouse on this site began operating, year current lighthouse began operating, appearance of tower, height of tower, types of lens, lens focal plane, distance light can be seen by ships, currently manned by a keeper or automated, current other use(s), current owner.

ACTIVITY FOUR: Not-so-secret Codes

(SOC.1.2. Comprehend the Past; ELA.7. Skills and Processes)

DISCUSS: Codes have a long history. As a form of language “shorthand,” Morse Code served telegraph operators for many years. During the Lewis and Clark Expedition, Captain Lewis communicated with President Thomas Jefferson using a code system. The Navajo code-talkers used their native language as a code during war. Friends sometimes develop special codes to keep their messages private from others. The scientific study of encoding and decoding messages is called cryptology.

Ships use colorful nautical flags—International Code Flags—to signal each other and to signal shore installations. Five colors, easily distinguished over water, are used: black, white, red, blue and yellow. Each flag is assigned a letter and a meaning. In combination they have further meanings. For example the flag that stands for the letter “J” signals “On fire, keep clear.” In combination, the flags for “A” and “N” mean “I am abandoning my vessel.” (Signal flags also include pennants with numerical and other meanings.) On the Time Traveler page the signal flags have been arranged by their letters to spell “Tawas” in the left column and “Point” in the right column.

DO: Distribute the International Code Flags handout, page 4. Ask students to design a message using the flags to represent the letters of the alphabet, drawing the flags with crayons or markers. Exchange designs, letting another student decode the message. (Web resources: www.boatsafe.com/nauticalknowhow/flags.htm, www.nightbeacon.com/zmaritime/navigation/internationalflagswhistles.htm)

Teachers, please send your suggestions for these Teacher’s Guides to timetraveler@michigan.gov. Find past newspaper pages and teacher’s guides online in PDF format at www.sos.state.mi.us/history/timetraveler/.

Keeper Brown's Journal
An Excerpt

JOURNAL of Light-Station at Tawas Point Lake Huron September 1910
Jas. W. Brown, Keeper

MONTH.	DAY.	RECORD OF IMPORTANT EVENTS AT THE STATION, BAD WEATHER, ETC.
September	1st	Lighthouse tender Anemone came in harbor at 6 pm. Com. Morgan came ashore and inspected Station. Found every thing in good condition. Asst. to town from 3 to 7 PM with mail.
	2nd	Keepers repairing sidewalks and dock to boat house.
	3rd	A general inspection made around Station found every thing in good condition.
Sunday	4th	Nothing but the ordinary duties going on at the Station. Two visitors from East Tawas visited Station.
	5th	Both keepers busy cleaning up around Station. Tested Signal this am. Every thing worked fine.
	6th	Lifesaving crew found body of Mr. Turket who was drowned Aug 29 th .
	7th	1st asst to town from 8 am to 11 am for mail. Keepers both down at signal cleaning up this pm. E.D. Minthine left for his house in Saginaw.
	8th	Keepers to . . . town to take oath of office this pm from two to five.
	9th	1st asst brushed down cobwebs on buildings this am. 2nd asst to Park to meet his wife.
	10th	A general inspection made around Station. Found every thing in good condition.
Sunday	11th	Nothing but the ordinary duties going on at the Station.
	12th	1st asst to town from 9 to 12 am with mail. Both assts. tested Signal this pm.
	13th	Nothing but the ordinary duties going on at station.
	14th	Keepers dusted tower and fog signal a.m. 1 ass't to town from 2 to 8 p.m.
	15th	Keepers splitting wood at fog signal this am, to town from 2 to 8 p.m.
	16th	Keepers cleaning in lantern this a.m., to town from 1 to 6:30 p.m. to meet Mr. Burrows.
	17	Assistant moving in a Cottage at the Station.

(Some punctuation and capitalization added.)

International Code Flags

A		B		C		D		E		F		G																									
H		I		J		K		L		M		N		O		P		Q		R		S		T		U		V		W		X		Y		Z	

COLORS

= BLACK

= WHITE

B = BLUE

R = RED

Y = YELLOW

Compare Two Lighthouses

Fill-in form for Activity Three

	Tawas Point Light	Cape Hatteras Light
Location (city, state)		
Body of water guarded		
Year 1 st lighthouse on this site began operating		
Year current lighthouse began operating		
Appearance of tower		
Height of tower		
Original lens		
Current lens		
Lens focal plane		
Distance light can be seen by ships		
Currently manned by a keeper or automated?		
Current other use(s)		
Current owner		