BIG SABLE POINT LIGHTHOUSE EDUCATIONAL PACKET

PREVISIT ACTIVITIES

for

Big Sable Point Lighthouse

- To help each child get familiar with Big Sable Point Lighthouse have them color by number the drawing of Big Sable Point Lighthouse.
- Discuss Charles Mears and his impact on the community and his involvement with the building of Big Sable Point Lighthouse. (Using information provided.)

Michigan Social Studies Content Expectation 2-H2.03 Michigan Social Studies Content Expectation 4-H3.01

 Make a Wall Timeline depicting the major events establishing Big Sable Point Lighthouse – using information provided on handout

1. Decide the topic of your timeline:

-Events leading up to the building of Big Sable Point Lighthouse

-Changes in Big Sable Lighthouse after its construction

-Controlling authorities of Big Sable Point Lighthouse including keepers

You can make your temporary timeline from a roll of newsprint. If it will be permanent, I would recommend using cardstock or poster board for durability. Each section can be made separately on a different piece of poster board.

3. Decide what span of time to cover - how many years.

- 4. Figure out how much actual wall space you have to use how many inches
- 5. Divide the wall space by the number of years. Now you know how many inches equal a year. Draw a line down the length of the timeline and divide it into segments of time such as 10 years etc.

Choose which events and people to add to your timeline.

7. Add Illustrations. On my world history timeline, I drew pictures directly on the timeline, or let your children draw the pictures. On the American history timeline, photocopy pictures from books then color them with markers.

Michigan Social Studies Content Expectation 2 – H2.0.1 Michigan Social Studies Content Expectation 4 – H3.0.9

Introduction of Dia-Phone Fog Signal 1934 – Morse Code Activity

POST VISIT ACTIVITIES For Big Sable Point Lighthouse

 Homes in the 19th century were very different from our homes today. Make a Venn Diagram together as a class to tap knowledge and experience comparing Big Sable Point Lighthouse keeper's dwelling to most of their homes.

Worksheet provided Michigan Social Studies Content Expectation 4 – H3.0.4

 Move from the Venn Diagram to a written comparison from each child of their home and how it compares to Big Sable Point Lighthouse

Writing paper provided

Michigan Social Studies Content Expectation 4 – H3.0.4

3. Each lighthouse has its own unique marking that allows sailors to tell where they are simply by looking at the lighthouse. Use the worksheet and make one tower to represent Big Sable's tower. Use the second and third tower and design two different day marks of your own. Remember a daymark is the way a lighthouse is painted along with its shape, height, location and other buildings.

Worksheet provided

4. To continue to help the children see how different life was for the lighthouse children than theirs do the following:

 have them try saying a simple paragraph in 12 sec intervals being interrupted by the fog horn (whistle, horn, etc) for 3 second blasts.

Sample Paragraph -

Going to Big Sable Lighthouse was fun. It was cool to climb the 130 steps to the top of the tower and imagine that you were the lighthouse keeper keeping the light so ships would be safe in the dark, storms and fog.

Michigan Social Studies Content Expectation 4 - H3.0.4

Introduce and play some of the common games of the time period.
 Pick-Up sticks
 Hopscotch
 Marbles
 Chuck-Farthing
 Make a Button Whizzer or Buzz-saw
 Graces
 Instructions for these games are included
 Michigan Social Studies Content Expectation 4 – H3.0.4

- Make a model of Big Sable's tower using pattern included Copy onto construction paper. If you set your copier to 140% it will copy larger onto 11 by 17 papers
 - 1. Color tower middle band black
 - 2. Color roof red
 - 3. Cut out pieces
 - 4. Tape tower side A and C to side B
 - 5. Cut out walkway, roof and walkway railing
 - 6. Fold walkway railing in half
 - 7. Tape side E and side F of walkway railing together
 - 8. Attach D tabs of walkway to walkway railing
 - 9. Place roof and tape onto tabs A and tape

Michigan Social Studies Content Expectation 2 - H2.0.5

Label the Lighthouse Tower Diagram
 Complete the worksheet using the word bank to label the parts
 Big Sable Point Lighthouse's tower.

Michigan Standards taught Through the use of this historical information

2-H2.0.1 Demonstrate chronological thinking by distinguishing among years and decades using a timeline of local community events.

2-H2.0.5 Identifies a problem in a community past and described how it was solved.

4-H3.0.1 Use historical inquiry questions to investigate the development of Michigan's major economic activities from statehood to present. (Lumbering)

4-H3.0.4 Draw upon stories, photos, artifacts, and other primary sources to compare life of people in towns and cities in Michigan and in the Great Lakes region during a variety of time periods from 1836- the present.

REQUESTS and NEEDS for the THE BIG SABLE POINT LIGHTHOUSE

1848 merchant schooner NEPTUNE sank off Big Sable Point

Losses

37 lives

\$35,000 of cargo

- 1866, July -The fast growing logging interest caused local officials to request a Light Station at Big Sable Point
- 1850's Mears became a senator on the Michigan Legislature and began to push for a lighthouse to be built at Big Sable Point.
- 1858 (early) Land was surveyed.
- 1858, May 29th Land was reserved.
- 1856, June 4th, President, Franklin Pierce reserved one parcel of land.
- 1858, May 28th, President James Buchanan reserved a second parcel of land.
- CIVIL WAR No further action on the building of a lighthouse.

1865, June 30th, Lighthouse board reports:

"The most salient point on the eastern shore of Lake Michigan, between Point Betsey and Muskegon, is known as Grand Pointe au Sable, and is unmarked by night. It is a principal landmark for day navigation, and it would seem that the interests of commerce demand that it be suitably lighted. A special estimate is submitted."

1866, July 28 congress appropriated \$35,000 for a new lighthouse at Big Sable Point.

REQUESTS and NEEDS for the THE BIG SABLE POINT LIGHTHOUSE (con't.)

1866, October 16, President Andrew Johnson ordered a final parcel of land to be added.

1867, November 1, Big Sable Point Light was lit for the first time.

BIG SABLE POINT LIGHTHOUSE consisted of – a tower 112 feet in height, a keeper's dwelling, a third order Fresnel lens, showing a fixed light.

Michigan Standards Taught through the use of this timeline

2-H2.0.1 Demonstrate chronological thinking by distinguishing among years and decades using a timeline of local community events.

2-H2-0.3 Use an example to describe the role of the individual in creating history

2-H2-0.4 Describe changes in the local community over time.

TIMELINE OF MAJOR EVENTS LEADING UP TO THE ESTABLISHMENT OF THE BIG SABLE POINT LIGHTHOUSE

1830s - logging and shipping

1847 - Charles Mears bought 5,550 acres of the timberland on Big Sable Point

1848 - Baird and Bean established the first sawmill in Pere Marquette

1855 - 12 shipwrecks, 48 lives

1856 - Congress approved

1859 - Ludington and Charles Mears granted permission to open a new channel from Lake Michigan into Pere Marquette Lake. This greatly improved the harbor

1864 Pere Marquette was changed to Ludington.

1861 - Civil War

1864 Pere Marquette was changed to Ludington.

1867 - Big Sable built

- \$35,000 appropriation
- first lit November 1
- 933 acre site
- 500 feet from lake
- yellow brick tower
- 112 feet to ventilator ball
- 1 keeper and 1 assistant
- third order Fresnel lens
- lard oil lamp fixed, white light
- visible 18 miles

1900 - metal clad tower

1900 - tower daymark 1909 - kerosene lamp, visible 19 miles

1909 - fog horn, heard 5 miles

1909 - 2nd assistant

1934 - Dia-phon fog horn

1941 - new fog horn

1949 - in-door plumbing

1949 - electric lamp, visible 19 miles

1953 - entire station electrified

1970 - Coast Guard leaves

1985 - 300 mm plastic lens, visible 15 miles

1991 - seawall completed

2002 - site transfer to State of Michigan

SPLKA operates and maintains

BIG SABLE POINT LIGHTHOUSE FACTS AT A GLANCE

1867 Built

Names

Grande Pointe au Sable Lighthouse Grand Point au Sable Grand Sable Point

April 30, 1910 - BIG SABLE POINT LIGHT STATION - Official name

Current - Big Sable Point Light

Sable means sand

1848 merchant schooner "Neptune sank 37 died \$35,000 in cargo lost Caused officials to request a lighthouse

1850 Charles Mears became senator, requested a lighthouse

1855 12 ships wrecked between Big Sable and Ludington 47 died

Aug. 18 1856 Congress appropriated \$6,000 for building a light at Big Sable Point.

Civil War delayed the construction of the lighthouse

June 4 1856 President Franklin Pierce reserved a parcel of land

May 28, 1858 President James Buchanan reserved a second parcel

July 28, 1866 and October 16, 1866 Congress appropriated \$35,000 for lighthouse; final parcel of land added by order of President Andrew Johnson

Final site 933 acres

Tower made of soft yellow Milwaukee brick

Wall 5 feet thick at base tapering to 2 feet thick at top

Tower is 112 feet tall

Lit for the first time November 1, 1867

Third order lens showing a fixed white light

Light can be seen for 18 miles

June 1900 Metal cladding was fabricated at lighthouse depot in Milwaukee to slow deterioration

18th and 19th Century Games

Pick-Up Sticks - (originally known as JACKSTRAWS)

SUPPLIES: Sticks of the same length of various colors and one stick a different color Game is played with sticks of the same length. They are often dyed different colors. The sticks are gathered in one hand and held above the ground the length of the sticks. They are then released, falling to the ground and overlapping each other. One stick is colored different from all the others that are placed in the bunch. The person who dropped the sticks begins removing the sticks one at a time without causing any of the other sticks to move. The object of the game is to accumulate more sticks from the pile than the other players. In the event that any stick other than the one being removed is moved at all, that player forfeited his or her turn to the next player. At the end of the game the player with the most sticks wins.

Hopscotch-(names comes from a 17th century term –ESCOCHER, meaning to cut with a stick. Children originally marked the ground with a stick)

SUPPLIES: Sidewalk chalk or a stick and a pebble
It is played by marking squares on the ground and leaping into
designated squares in a particular sequence. The game is played by
scratching (chalk) a series of squares on the ground, sometimes single
squares and sometimes two squares side by side, on which the children
would jump. As a child progressed satisfactorily through the series of
squares, a pebble would be tossed into the next square to mark the
beginning square into which the child was to make their first jump. The
remaining rules vary widely, but the object is to make the necessary leaps
and maintain your balance as you progress through the series of squares.

Chuck-Farthing -

SUPPLIES: cup or hole in the ground, coins or buttons
The players pitch the coins or buttons into the cup or hole. The player that
gets the most wins.

Graces-

SUPPLIES: the inside piece of an embroidery hoop, ribbons 3 feet of each color, 2 12" dowels for each player

The hoop is bound with one or more ribbons tied at the ends. The object is to throw and catch the hoop on the sticks. The game can be played by 2 or more players. The sticks are held about 4 inches apart when trying to catch the hoop. To throw the hoop the sticks are held in the hands with the hoop in the middle. The sticks are crossed like a pair of scissors. The hands are quickly spread apart and the hoop flies to the other person.

Marbles-

SUPPLIES: marbles

TWO DIFFERENT GAMES Picking Plums and Capture Picking Plums-

Each player places a marble or two in a row, with room for two marbles to pass through the gaps. Each player then shoots in turn from behind a line about 5 feet away. Players may keep any "plums" knocked from the line. A player gets an extra shot whenever he picks a plum.

Capture-

Two players can play capture. The first player shoots his/her marble out and the second player tries to hit it with his/hers. If he/she does hit it he/she may keep it. It he/she misses, her marble stays where it is and the first player tries to hit it with his/her marble. If the first player hits the second player's marbles, he/her keeps it. Otherwise they alternate turns until one player takes the other player's marbles.

Button Whizzer or Buzz-Saw -

SUPPLIES: one heavy coat button and about 2 1/2 feet of heavy string Thread the string through two of the button's holes. Tie the ends of the string together. To get the button whizzing, hold the ends apart on one of your fingers with the button in the middle. Loosely hold the string and twist the string around. When twisted completely pull the string on both ends and loosen repeatedly.

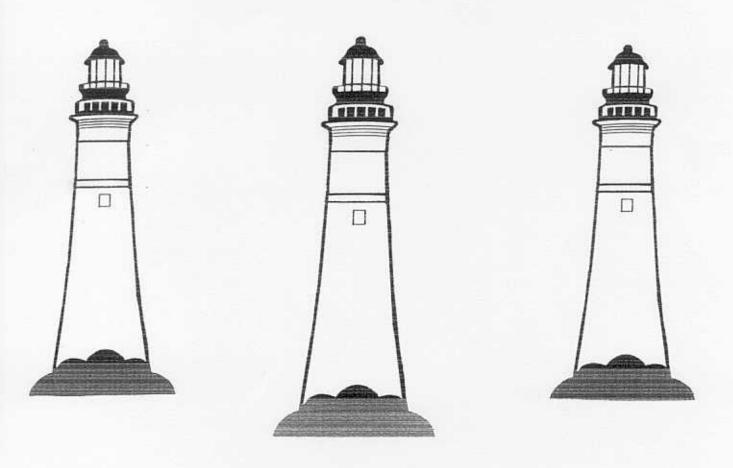
DESIGN YOUR OWN DAYMARK

Sailors can always tell where they are during the day or night, just by looking at a lighthouse.

At night, sailors can tell where they are by keeping track of the flashes for a lighthouse. This is a *nightmark*. Big Sable has a fixed light. This means it does not flash. From dusk to dawn the light is steady.

During the day, sailors know which lighthouse they are near by its daymark, or how it is painted. Big Sable Point is white with a black band around its middle and a black parapet.

Suppose you had to design a lighthouse daymark! Below are some plain lighthouses, give them different daymarks so sailors can tell them apart!



Big Sable Point Lighthouse Educational Packet 2008

THE FIRST DIA-PHONE FOG SIGNAL 1934

February 1, 1934 the worn out siren fog-signal was replaced with a new two tone Dia-phone fog-signal. It was powered by compressed air from a Diesel compressor system.

It has been said that when the fog signal was in use the family had to plan their conversations around the blast.

CRACK THE CODE

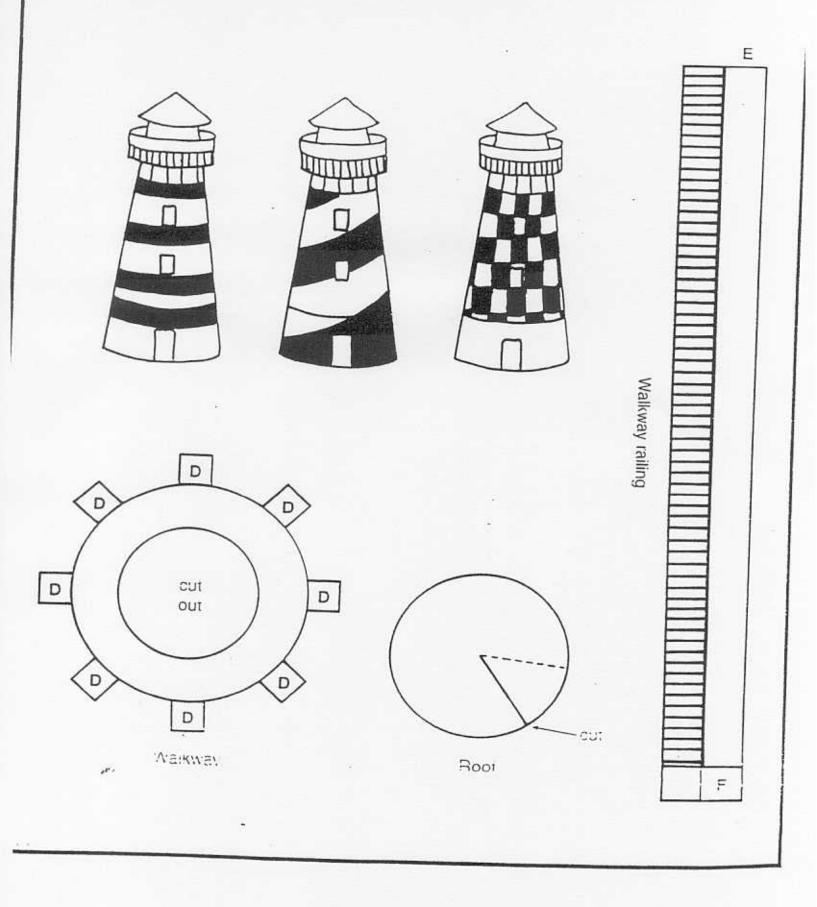
International Morse Code was used as a way of communication from ship to shore. The code is made up of patterns of dots and dashes that match the letters of the alphabet.

Use the code below to figure out the message being sent to you.

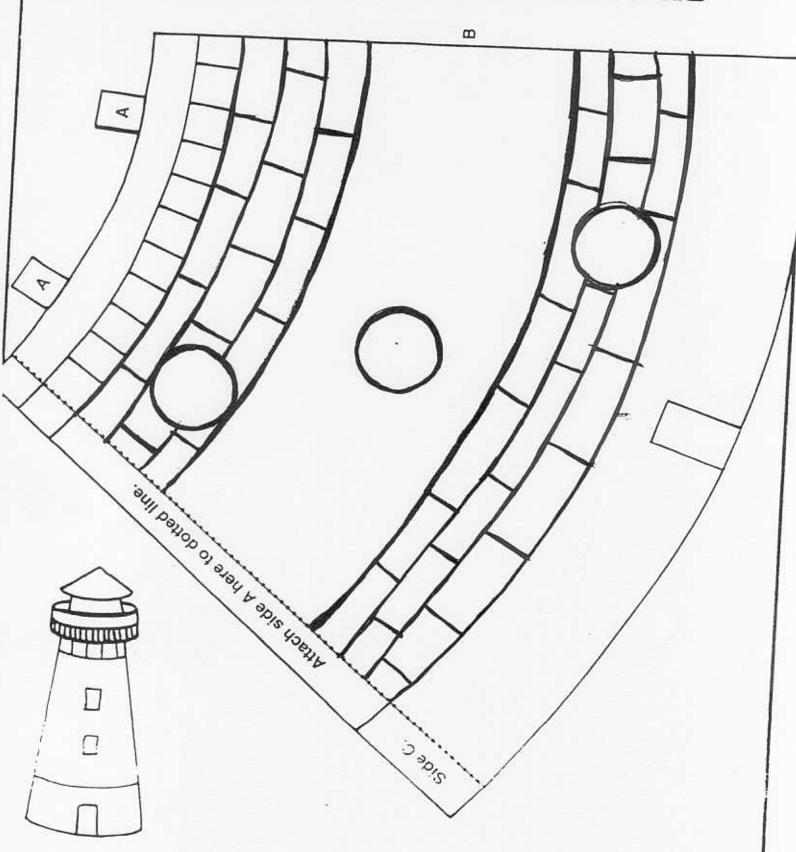
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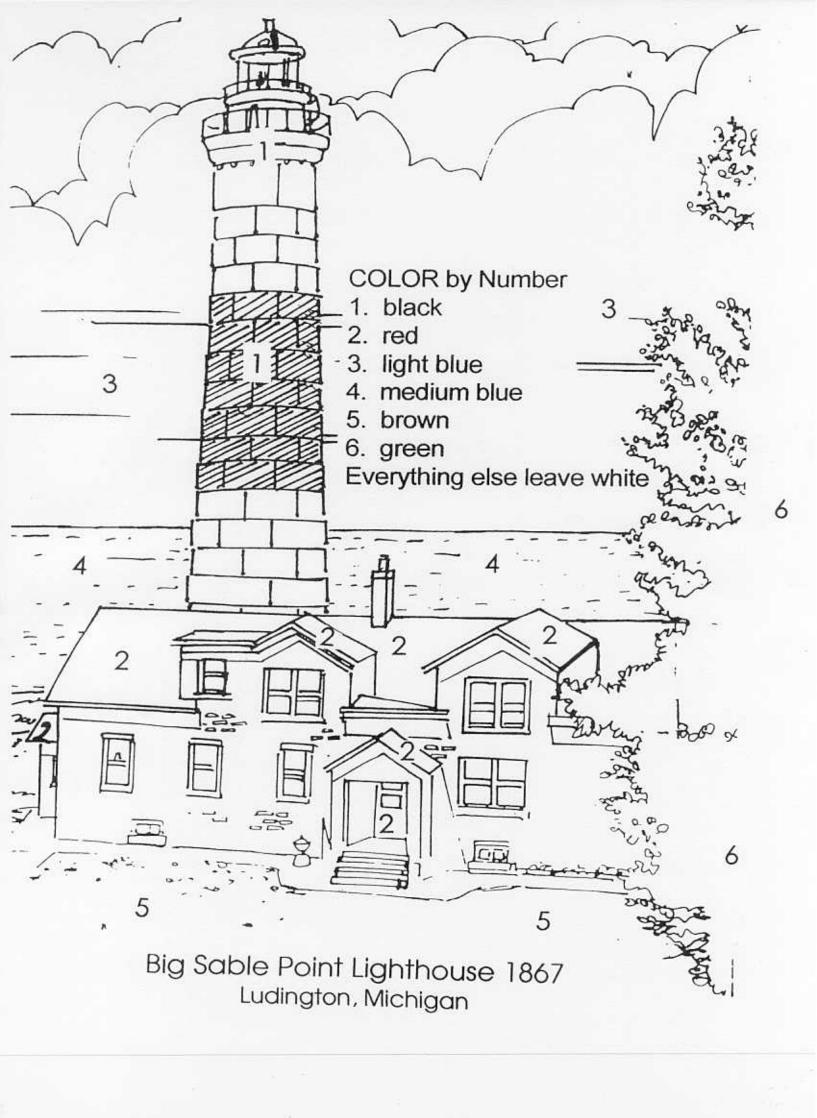
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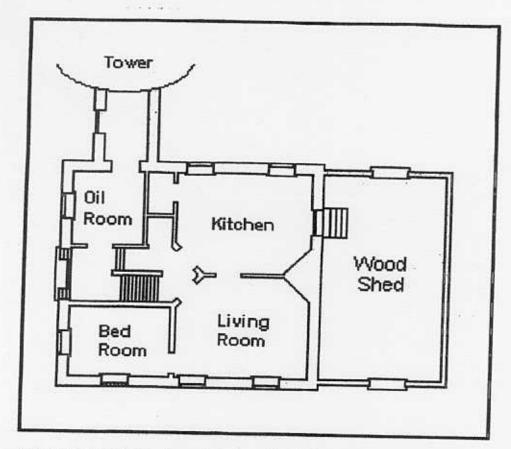
Lighthouse Craft Patterns



Lighthouse Craft Patterns







(Drawing by Author from drawings in National Archives RG-26)
The first floor of the original 1867 keeper's house.

Name	Date									
Use your Venn Diagram to help you write a compare and contrast article about the similarities and differences in your house and the lighthouse keeper's house at Big Sable Point Lighthouse.										
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BIG SABLE POINT LIGHTHOUSE

Search and find the words below related to Big Sable Point Lighthouse

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31G SABLE _AMP FOWER LENS LIGHTHOUSE HYDE DAYMARK KEEPER STAIRWAY FOGHORN LOG SHINE

FRESNEL ORDER WATCH

BIG SABLE POINT LIGHTHOUSE

Search and find the words below related to Big Sable Point Lighthouse

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BIG SABLE NIGHTMARK LANTERN ROOM LOG STAIRWAY LENS FOGHORN LIGHTHOUSE THIRD ORDER SHINE

COAST GUARD FRESNEL LIGHTKEEPER TOWER WATCH

DAYMARK LAMP LIGHT STATION HYDE

RECOMMENDED BOOK LIST

TEACHER READING LIST:

DeWire, Elinor. THE LIGHTHOUSE ACTIVITY BOOK

Hoyt, Susan Roark. LIGHTHOUSES OF NORTHWEST MICHIGAN

Kozma, LuAnn G., ed. <u>LIVING IN A LIGHTHOUSE: ORAL HISTORIES OF THE</u>

<u>GREAT LAKES</u>

Tag, Thomas. BIG SABLE POINT LIGHTHOUSE

STUDENT READING LIST:

Deutsch, Andre. THE LIGHTHOUSE KEEPER'S LUNCH

Gibbons, Gail. BEACONS OF LIGHT: LIGHTHOUSES

Hopkinson, Deborah. BIRDIE'S LIGHTHOUSE

Roop, Peter and Roop, Connie. KEEP THE LIGHTS BURNING ABBIE

Sargent, Ruth. THE LITTLEST LIGHTHOUSE

Vaughan, Marcia. ABBIE AGAINST THE STORM

Waterton, Betty. THE LIGHTHOUSE DOG

BIG SABLE POINT LIGHTHOUSE VOCABULARY LIST

Characteristics - Individual flashing pattern of each light

Daymark – a unique color scheme and or pattern that identifies a specific lighthouse during the daylight hours

Fixed Light - a steady or non-flashing pattern of each light

Fog Signal – a device (such as a whistle, bell, canon, horn, siren, etc) which provides a specific loud noise as an aide to navigation in dense fog

Fresnel (fruh-NEL) Lens – A type of optic consisting of a convex lens and many prisms of glass which focus and intensify the light through reflection and refraction

Gallery – on a lighthouse tower, a platform or walkway or balcony located outside the watch room (main gallery) and/or lantern room (lantern gallery)

Keeper - the person who takes care of the light in the lighthouse

Lamp - the lighting apparatus inside a lens

Lantern Room – Glassed-in housing at the top of a lighthouse tower containing the lamp and lens

Lens - A curved piece of glass for bringing together or spreading rays of light passing through it

Lighthouse – a lighted beacon of major importance in navigation

Light Station – A complex containing the lighthouse tower and all the outbuildings – living quarters, fuel house, boathouse, fog signaling building, etc.

Log - a book for maintaining records similar to a diary

Nightmark – the individual pattern or color of light that makes each lighthouse an unique navigation aid at night; each lighthouse nightmark is different so mariners know which lighthouse they are seeing

Prism - A transparent piece of glass that refracts or disperses light

Privy - an outhouse; outdoor toilet

Pharologist - One who studies or is interested in lighthouses

BIG SABLE POINT LIGHTHOUSE VOCABULARY LIST (con't)

Order – size of the Fresnel lens which determines the brightness and distance the light will travel

Reflect - bend or throw back light

Refract - bend or slant rays of light

Restoration - rebuilding or repairing a building to its original condition

Tower - structure supporting the lantern room of the lighthouse

Watch Room – a room immediately below the lantern room where fuel and other supplies were kept where the keeper prepared the lanterns for the night and often stood watch

"Wickie" - A nickname given to lighthouse keepers, derived from the task of trimming the wick of lamps

BIG SABLE LIGHTHOUSE TOWER DIAGRAM

