

SOUNDSIDE LEARNING

THIS WEEK ON CORE SOUND

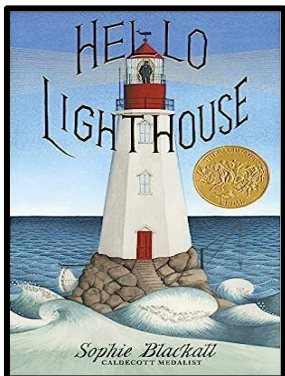


July 3, 2023

COMING UP AT CORE SOUND...

- **July 6:** *806 Parlor Talk* "Cape Lookout Lighthouse- Past & Present" by Nate Toering @ 2:00 PM
- **July 8:** All-American Shrimp Fry; Click here to join us! [SHRIMP FRY 2023](#)
- **July 11-13:** *Science All Around Us* camp

Sound Reading Material For You and Your Child



Hello Lighthouse By Sophie Blackall

Watch the days and seasons pass as the wind blows, the fog rolls in, and icebergs drift by. Outside, there is water all around. Inside, the daily life of a lighthouse keeper and his family unfolds as the keeper boils water for tea, lights the lamp's wick, and writes every detail in his logbook.

Step back in time and through the door of this iconic lighthouse into a cozy interior with the extraordinary award-winning artist Sophie Blackall.

Pages: 48
Grades: preK-3rd

Support by the Plateful

Tradition is the spreading of customs from generation to generation. A long-treasured example enjoyed by those in and around Sea Level for nearly four decades was their annual Fourth of July Fish Fry. This event began in 1953 and fed thousands of folks through the years.

When the tradition began, it was for the benefit of Sea Level Hospital. In later years, Sea Level's fish fry became a fundraiser for their fire and rescue department which is also where it was held. The first fish fry was part of the hospital's dedicatory event. In 1974 Woody Hancock (my uncle and long-time chairman of the Board of Directors) and Wally Morris approached Dallas Willis who loaned a building to be used as a community center.

Residents recognized the need for a local fire department and rescue squad since the closest one to them at that time was on Harkers Island. Volunteers were trained and certified, and land was donated by the Taylor brothers to construct a building. The hospital supported this important project and not only donated the use of its ambulance but also turned over the fish fry to them as a fundraiser in 1974.

Stevie Daniels shared with me a story of his first fish fry when he was about 10 years old. He rode his bike to the shore side where the fish fry was being prepared. Romain Gaskill was making lemonade and allowed him to help. Stevie recalls squeezing twenty cases of lemons that day and was given a ticket to the event for his efforts!

Fish fry plates were loaded with mullet, bluefish, steamed shrimp, slaw, cucumbers, tomatoes, and hush puppies. Through the years, the event included bake sales, music by Main Street, raffles, exhibits, boat races, lots of socializing, and more.

Seafood was often donated by local fishermen and fish houses. Businesses gave raffle items, and volunteers cooked and served with smiles.

Tilmon Taylor, Jr., fondly spoke of this annual tradition when he told me, "It was more important than just a fundraiser. It was a homecoming for the people. It was an event that connected folks in a way that formed a unique community bond that was strong and sure. Those were, indeed, the days."



Shedding Light

The first Cape Lookout lighthouse used several oil lamps to make its light bright. When our current Cape Lookout lighthouse became operational in 1859, a more efficient lighting system was implemented inside the lantern. Consisting of a single oil burning lamp inside a large, glass Fresnel lens, this system was a tremendous improvement.

The basic idea behind a Fresnel lens is simple. Imagine taking a plastic magnifying glass lens and slicing it into a hundred circular rings. Each ring is slightly thinner than the next and focuses the light on the center. Now take each ring, adjust it so that it is flat on one side, and make it the same thickness as the others. The slant of each ring's angled face will vary. A Fresnel lens creates its bright beam of light using glass prisms that change the direction in which light is traveling, so all the light exits the lens in the same direction. The prisms do this by refracting, or bending, light and reflecting it as well.

A Fresnel lens has the appearance of a huge glass beehive. These lenses come in seven sizes or "orders." A first order lens is the largest with a diameter of six feet. This size lens was used in coastal lighthouses like our Cape Lookout lighthouse. In 1979, this lens was replaced by two modern electric beacons. These beacons use 1000-watt electric light bulbs. Eventually electricity became available for Cape Lookout's lighting. Initially, gasoline-powered generators were the only way to have electricity for the light. Today, an underwater cable running from Harkers Island supplies electricity to the lighthouse.

The heart of a lighthouse is the light that its top shines. This light can be either "fixed" or "flashing." The color of the light can be white, red, green, or a combination of these colors. These variations allow mariners to tell lighthouses apart at night. The light at Cape Lookout was a "fixed white" from 1812 until 1914. At that time, a clockwork device was added to the Fresnel lens to make the white light appear to "flash." Since that time, the light has had various flash patterns. Currently the pattern is one flash every 15 seconds and is visible at least 12 miles out to sea.



First Order Fresnel Lens
photo from <https://www.nps.gov>

Light Refraction Fun

- Get a sheet of paper and draw two arrows on it. One arrow near the top and one arrow near the bottom. Make the arrows point in the same direction.
- Fill a glass with water.
- Look through the glass of water and watch what happens.

You will see the light bend when it travels through the glass cup and water, and then it will bend again when it travels out of the glass cup and into the air. As a result, the light paths cross and the image appears to be flipped horizontally (left/right).



SCIENCE
for YOU