Before Your Bay Day!

Pre-Visit Materials designed by the Chesapeake Bay Maritime Museum

**Types of Lighthouses: You Be the Engineer!**

**Materials**
- “Types of Lighthouses” worksheet & chart
- Optional: various nautical charts
- Answer Key & Teacher Tips

**Grade Level**
- 4th-8th grade

**Time**
- 30 minutes

**Goal**
To gain an understanding of the difference between three different lighthouse types, including their appearance and typical locations.

**Assessment**
Collect or check off that students have completed the lighthouse activity worksheet.

**Procedure**
1. Distribute the “Types of Lighthouses” worksheet and nautical chart. As a class, discuss the purpose of lighthouses and the three different types of lighthouses. Have students point out differences they notice and give reasons as to why these differences are necessary.
2. Have students work alone or in small groups to complete the activity, determining what type of lighthouse should be located at each designated location on the map.
3. Once everyone has finished, go over the answers as a class and have students give explanations for their answers.
4. Optional: show other nautical charts to the class and discuss observations with regards to water depth, land shapes, lighthouse locations, etc.
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Types of Lighthouses: You Be the Engineer!

For many years, lighthouses have been used as a means of navigation. Their lights serve as a warning to boat captains to avoid dangerous areas in the water. There are several different types of lighthouses designed to guide boats near land, in shallow water, or in deep water.

**Tower style lighthouse:** tower-like structures built on land, near the shoreline to alert captains to steer clear of shore

**Screwpile style lighthouse:** cottage-style lighthouses which mark shoals in areas of water that are protected from strong currents, winds, and ice (You will see a screwpile lighthouse when visiting us at the museum)

**Caisson style lighthouse:** in areas that are more exposed to harsh weather elements, shoals were marked by these cast-iron lighthouses

**Shoal:** an area of a body of water that is very shallow

Using the above information and the attached depth chart, try to determine which type of lighthouse should be constructed at locations A, B, and C. Write tower, screwpile, or caisson in the correct blank.

A. ______________________________

B. ______________________________

C. ______________________________

*Photos courtesy of Chesapeake Bay Gateways Network"
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Types of Lighthouses: You Be the Engineer! Answer Key

A. __Screwpile__ (This lighthouse warns of a shoal where the river shallows from depths in the 40s down to 15 ft. The area is hidden in a cove, therefore protected from harsh weather elements)

B. __Tower__ (This lighthouse is constructed on land to warn captains of the point sticking out into the Bay)

C. __Caisson__ (This lighthouse warns of a shoal where Bay depths decrease down to 8 ft. Because it is in the main body of the Bay, this area is likely exposed to harsh conditions, such as heavy winds, strong currents, and ice)

Teacher Tips

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START

Is the point on land or in the water?

if on land
  Tower lighthouse

if in the water
  Is this area in open water or protected by nearby land?
    if in open water
      Caisson lighthouse
    if in protected water
      Screwpile lighthouse
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