



# CAPE COD MARITIME MUSEUM

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## **Basic Coastal Navigation**

### Lesson Goal:

Mariners use a variety of tools to help them navigate our Cape Cod shores and waters. This class will explore how technology has changed navigation, from memorizing landmarks, nighttime plotting by stars, to paper charts and now GPS.

### Lesson Objectives:

The students will:

- learn how to use a compass.
- understand how a sextant works.
- learn how to use a nautical chart, including recognizing different landforms.
- use parallel rulers to chart a course.
- recognize significant landmarks from photographs.
- explore GPS technology and how to navigate with it.

### Assessment:

The teacher will:

- facilitate discussion for students to share their existing knowledge.
- observe students using their compasses & slide rulers.
- analyze students' ability to plot their courses correctly.
- observe students' engagement.
- encourage students to analyze the different technologies.

### Frameworks:

- *K-ESS2 Earth's Systems* K-ESS2-1; K-ESS2-2
- *K-2-ETS1 Engineering Design* K-2-ETS1-1
- *2-ESS2 Earth's Systems* 2-ESS2-1; 2-ESS2-2; 2-ESS2-3; 2-ESS2-4(MA)
- *K-2-ETS1 Engineering Design* K-2-ETS1-3
- *3-ESS3 Earth and Human Activity* 3-ESS3-1
- *4-ESS1 Earth's Place in the Universe* 4-ESS1-1
- *4-ESS2 Earth's Systems* 4-ESS2-2
- *3-5-ETS2 Technological Systems* 3-5-ETS2-1
- *MS-ESS2 Earth's Systems* MS-ESS2-5; MS-ESS2-6

*For More Information About this Class:*

This class can be designed by the Museum staff for any grade level from k-12, and can be taught at the Museum or in the school classroom. To see how it can meet your educational needs, and for an estimate of costs per students, please contact CCMM's Education Coordinator and STEM teacher, Deirdre Detjens, at 508-775-1723 or [ddetjens@capecodmaritimemuseum.org](mailto:ddetjens@capecodmaritimemuseum.org)

*CCMM Education Mission:*

Cape Cod Maritime Museum provides students and educators of all ages, real-world, interactive, inquiry-based, learning opportunities utilizing Cape Cod centric pedagogy to inspire an enduring connection with Cape Cod maritime culture. With a comprehensive suite of educational programs, our science, technology, engineering, art and math topics drawn from our own coastal marine environment enabling students to embrace new knowledge and skills in a way that is relevant to Cape Cod and our local culture. All classes are based in an appreciation and respect for Cape Cod's maritime past, present and future.