



# CAPE COD MARITIME MUSEUM

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## Water Quality Testing: Waters of Cape Cod

### Lesson Goal:

The goal of this lesson is to introduce students to the importance of water quality and the many ways to test it. The class will utilize technology-based water testers, as well as natural indicators.

### Lesson Objectives:

The students will:

- learn about water pH, its significance & how to test it.
- test different samples of local water, both fresh and salt.
- use maps to see where Cape Cod's ground waters flow.
- recognize the different plant communities in photographs, based on pH.
- begin to understand ocean acidification and potential future issues for Cape Cod.
- understand how everyday items can contaminate our waters.
- work as teams to complete experiment.

### Assessment:

The teacher will:

- facilitate discussion for students to share their existing knowledge.
- observe students testing their water samples.
- analyze students' ability to follow water as it flows from source, watershed to ocean.
- observe students' engagement.
- encourage students to compare and contrast the different technologies.
- facilitate students' ideas for minimizing water contamination.

### Frameworks:

- *PreK-ESS2 Earth's Systems* PreK-ESS2-3(MA); PreK-ESS2-6(MA)
- *K-ESS2 Earth's Systems* K-ESS2-2
- *2-ESS2 Earth's Systems* 2-ESS2-1; 2-ESS2-3; 2-ESS2-3
- *4-ESS2 Earth's Systems* 4-ESS2-1
- *5-ESS2 Earth's Systems* 5-ESS2-1; 5-ESS2-2
- *MS-LS2 Ecosystems: Interactions, Energy, and Dynamics* MS-LS2-2; MS-LS2-4
- *HS-ESS2 Earth's Systems* HS-ESS2-5
- *HS-LS2 Ecosystems: Interactions, Energy, and Dynamics* HS-LS2-1; HS-LS2-3

*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.