

Distance Learning with the Seacoast Science Center

Bring the Sea into Your Classroom!



The Seacoast Science Center is an informal science education institution that specializes in the marine environment with a focus on the Gulf of Maine. Located right on the coast in historically rich and biologically diverse Odiorne Point State Park, the Center's educators have been creating distance learning programs since 2006. The full production capabilities of the Gregg Interactive Learning Studio make Center broadcasts responsive, personal, fun and effective. Our educators interact with students throughout the presentation and engage them with in-classroom activities. Students will be captivated by detailed views of live animals projected from our microscope camera. Underwater videos take students into the marine world to observe how animals behave in their undersea habitat. Let our educational staff work with you to create customized learning experiences that meet your needs and align with state frameworks.



Whether you choose one our popular ready-to-roll programs, or a program designed to meet your specific needs, your students will always remember their exciting distance learning experience.

Technical Requirements

Connecting to the Gregg Interactive Learning Studio requires:

- A Polycom, Tandberg, or similar video conferencing unit that supports High Definition video compression standards
- Internet, Internet2, or ISDN (dial in only) with minimum 364K connection speed

The Seacoast Science Center can also deliver programs via Skype, but the broadcast quality does not match the delivery standards met by our videoconferencing capability.

Core Programs

These one hour broadcasts have been standardized to meet most classroom needs and school schedules. Center programs also meet framework requirements for adaptation, life cycles, and classification as well as understanding pH, environmental science and current events. The cost for the first program is \$150; subsequent sessions are \$100. A test call will be conducted prior to the program.

Please see over for full descriptions of our core programs.

Coastal Critters: Living Here is Hard to Do

Learn how individual species and entire classes of creatures have adapted to survive on the rocky shore, the sandy beach and the salt marsh.



Lobsters: The Iconic Coastal Species

Discover the secrets of lobster behavior and learn about their unusual structural adaptations.



The Horseshoe Crab: Amazingly Adapted

Learn about the unique anatomy of this prehistoric creature and discover how it has remained perfectly adapted to its environment over time.



Ocean Acidification: How Changes to the Air Changes the Sea

Learn about cutting-edge research that is taking place to study how increased emissions of CO₂ are changing the ocean habitat by reducing the pH of seawater.

Custom Programs

If you want to bring the sea into your classroom and haven't found what you want in our core programs, we will work with you to design a customized program to suite your specific needs.



To schedule a program contact:

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“...research indicates that students who have the opportunity to augment their curriculum with videoconferencing experiences have greater motivation to learn and an increased ability to communicate about the concepts and the skills they are assessing.”

—Ward Melville Heritage Organization, 2002

Core Program Descriptions

Coastal Critters: Living Here is Hard to Do

Animals' adaptations to New England's coast have resulted in some amazing and amusing critters. This program highlights how individual species and entire classes of creatures have adapted to survive on the rocky shore, the sandy beach and the salt marsh. Students will see dramatic time-lapse images of the tidal cycle, prompting discussion about the special adaptations creatures have in order to live in and out of water. Videos of animal behavior, including how a sea star eats, how lobsters molt and how horseshoe crabs mate will make participants feel as though they are getting their feet wet and really looking beneath the water.

This program is best suited for grades 1-8.

Lobsters: The Iconic Coastal Species

Most students know about the last phase of some American Lobsters' life cycle: on a dinner plate! However, a lobster larva changes many times before it settles out of the water as a tiny version of an adult. Growing up is challenging: lobster life is intriguing and complex. This program will uncover some of the secrets of lobster behavior and its unusual structural adaptations. Still images and videos highlight stages of the lobster's life cycle, including images of the molting process. In addition to learning about the ecology of lobsters, students will gain an understanding of the long history of lobsters as an economic force in New England's traditional and turbulent fishing industry.

This program is best suited for grades 4-10.

The Horseshoe Crab: Amazingly Adapted

The horseshoe crab has not changed in millions of years! In this program, students will learn about the unique anatomy of this prehistoric creature and discover how it has remained perfectly suited to its environment over time. Participants will witness the life cycle of this prehistoric creature from embryonic development to mating behavior through still images and videos created specifically for this program. Students will also learn about the important bio-pharmaceutical properties of horseshoe crab blood.

This program is best suited for grades 1-8.

Ocean Acidification: How Changes to the Air Changes the Sea

Global emissions of CO₂ have increased enough to begin reducing the pH of seawater, profoundly changing the ocean as a habitat. An acidic marine environment compromises the ability of molluscs, plankton, sea stars, corals and other animals to produce their shells. This program provides students the unique opportunity to learn about this cutting-edge science through pre-recorded interviews with a scientist who is working on this urgent problem. Students will see lab experiments featuring acids and bases, pH, and calcification and will review the carbon cycle. This program is supplemented with video footage of the ocean scientist collecting data for his research.

This program is best suited for grades 8 and up.