

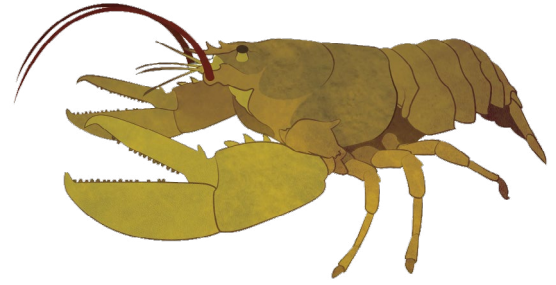
ROCKY SHORE

Marine Science Curriculum

An Ecosystem Unit for Elementary Educators



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Christa McAuliffe

Christa McAuliffe's inspiring life as a devoted, enthusiastic educator has been a major encouragement to me and schoolteachers all over the world. She was an outspoken advocate for the teaching profession, and even more importantly, a highly-esteemed role model to her students and colleagues. This project is dedicated to her memory.

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INTRODUCTION

The Rocky Shore Marine Science Curriculum: An Ecosystem Unit for Elementary Educators was created to provide elementary teachers and their students a comprehensive, standards-based science unit. This unit is a free, quality resource on the rocky shore ecosystem. Ecosystems are valuable life science topics taught throughout the world because of the unique interactions that occur between their organisms and physical environments, as well as the importance of maintaining the health of each ecosystem.

Studying ecosystems provides students with the opportunity to explore many important biological and ecological concepts such as interdependence, competition, adaptation, community, conservation, watersheds, short term & long term changes, invasive species and predator-prey relationships.

This curriculum is a user-friendly, professional course of study that incorporates the Next Generation Science Standards (NGSS) and the Ocean Literacy Principles (OLPs) and extensively covers the multitude of characteristics of the rocky shore, particularly the Atlantic rocky shore. It provides educators and students with a variety of educational, cross-curricular lessons that can be completed in sequence or individually.

This ecosystem unit is comprised of unit overview and schedule charts, an Atlantic rocky shore guide, Atlantic rocky shore fact sheets, and twenty-four lessons—including a summative assessment and a preparatory lesson for visiting the rocky shore. Each lesson includes the following:

- ★ Focus Question
- ★ Objectives
- ★ Materials List
- ★ Teacher Preparation List
- ★ Science Background for Teachers
- ★ Step-by-Step Procedure for Teachers
- ★ Next Generation Science Standards Alignment
- ★ Ocean Literacy Principles Alignment
- ★ Teacher Tips
- ★ Extension Suggestions
- ★ Literary Resources
- ★ Website Resources
- ★ Scientist Notebook Suggestions
- ... and more!

This beneficial curriculum was developed by the collaborative efforts of The University of New Hampshire Cooperative Extension/NH Sea Grant, The Seacoast Science Center, The New England Aquarium, Hobblebush Design, The New Hampshire Charitable Foundation, illustrator Adam Kelley and educator Thom R. Smith.

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