

MODULE OVERVIEW

ABOUT THIS MODULE

Just as classroom teachers have a responsibility to promote physical activity and advocate for physical education programs, physical educators must also infuse STEM subject areas into our outcomes-based instructional schedule. OPEN's Next Gen Connections Modules are designed to incorporate STEM concepts using the Next Generation Science Standard to guide our planning and instruction. This module provides students with an introduction to estuary science and conservation while reinforcing movement concepts and developing muscular endurance in the core and upper body.

For more information about estuary conservation efforts, please visit the Chesapeake Bay Foundation's Website: www.cbf.org

NATIONAL STANDARDS AND OUTCOMES FOCUS

- **SHAPE America Standard 1 [E11.3-5]:** Combines locomotor skills and movement concepts (levels, shapes, extensions, pathways, force, time, flow) (3); Combines locomotors and movement concepts (levels, shapes, extensions, pathways, force, time, flow) (4); Combines locomotor skills and movement concepts (5).
- **Next Gen Science Standard 3-LS4.D:** Populations live in a variety of habitats and change in those habitats affects the organisms living there.
- **Next Gen Science Standard 4-ESS3.A:** Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not.
- **Next Gen Science Standard 5-ESS3.C:** Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments.

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PLANNING
COMPLETE
LESSONS

This mini-module is designed to be delivered in one complete class period. Everything is included for full participation and evaluation of student learning.

Instant Activity: Estuary Exploration	5–10 minutes
+ Skill Activity: Protecting the Estuary	10–15 minutes
+ Skill Activity: Chesapeake Bay Restoration	10–15 minutes
+ Check for Understanding	5 minutes

Important: Suggestions are what they say they are – suggestions. All OPEN materials are offered in MS Word format so that you can easily modify our suggestions to meet the needs of your students.

ASSESSMENT

Two types of assessment are provided as a part of this module. However, there are many different ways for teachers and students to assess and evaluate student learning and skill development.

Estuary Exit Slips:

OPEN Connections activities are meant to offer skill-building physical activity as well as a context for discussing Next Generation Science concepts. Use the provided DOK Exit Slips to document student understanding.

As you review completed DOK Exit Slips, take note of topics and concepts for which students need additional instruction. Allow your observations to guide future planning and instruction.

Holistic Performance Rubric:

The Holistic Rubric can be used as both a formative and summative assessment within the module. Providing students with the rubric’s criteria at the start of the lesson will allow for discussion and formative evaluation throughout each activity.

This Dual Holistic Rubric separates skill and PSR characteristics, providing two sets of criteria to be evaluated separately. Next Generation Science Standards are evaluated in the skill portion of this rubric.

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CONNECTION NOTES:

(Use this space to make notes to enhance this module for your next implementation.)