Next Generation Science Standards Addressed By Chesapeake Bay Ecology Unit

This unit is ideal for any class studying the physical properties, water quality parameters, and marine life of the Chesapeake Bay ecosystem. There are multiple NGSS curricular alignments within the unit topics for students in grades 4 – 8 in Maryland Public Schools.

GRADE 4

4-LS1-1:	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. TOPICS: Fish anatomy, Hog choker anatomy, Blue crab anatomy, Diamondback terrapin anatomy, Eastern oyster
4-ESS2-2:	Analyze and interpret data from maps to describe patterns of Earth's features. TOPICS: Chesapeake Bay Watershed map

GRADE 5

5-PS1-3:	Make observations and measurements to identify materials based on their properties. TOPICS: pH test, Dissolved oxygen test, Nitrogen test, Secchi disk test
5-ESS3.C	Human activities in agriculture, industry, and every day 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. TOPICS: Chesapeake Bay watershed, Action projects

MIDDLE SCHOOL

MS-LS1-5:	Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms. TOPICS: Fish anatomy, Eastern oyster
MS-LS2-1:	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem TOPICS: Bar graphs of fisheries data for Eastern oyster and Atlantic blue crab
MS-LS4-4:	Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving in an environment. TOPICS: Fish anatomy, Terrapin anatomy, Blue crab anatomy, Eastern oyster life cycle