Using Real-Time Data to Assess Water Quality in the Chesapeake Bay

Educator’s Resource Guide
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These lesson plans use the Eyes on the Bay website as a key resource. We would like to thank the following Maryland Department of Natural Resources staff for their contributions: Christopher J. Heyer (TEA), Cindy Etgen (Watershed Services), Elena S. Takaki (Watershed Services) and Mark Trice (TEA). Special thanks to Kelly Carter-Matthews for aligning these resources with the Maryland Voluntary State Curriculum. If you have any questions about the Eyes on the Bay lesson plans, content, or technology, please contact:

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These resources and lesson plans were developed to support science and environmental studies educators and to help them integrate their classroom lessons with the use of the Eyes on the Bay website. Our goal is to enhance student learning of science concepts with the use of technology and current scientific data. We aim to facilitate the involvement of teachers and students in authentic science and environmental investigations. In this lesson series, the Eyes on the Bay website is used to gather information and interpret data. We encourage educators to visit local streams and use appropriate technology and water quality testing kits to supplement their use of the website.

Each activity can be used as a stand-alone lesson to teach the concepts of dissolved oxygen, salinity, pH, turbidity, and harmful algal blooms. Educators may adapt any of the lessons to meet their specific needs. The last activity (to be developed) is meant to bring all of the lessons together so students can culminate what they have learned into an action or service learning project.

After each lesson is completed, we would greatly appreciate your feedback. Please fill out the evaluation form so that we may continue to improve our educational services.

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