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Water Awareness Through Environmental Restoration

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This poster will highlight a series of project based activities carried out at Hammond Elementary School in Laurel, Maryland, USA. All of the featured projects revolve around the school's Green School Initiative or an integral part of the science curricula.
The Maryland Green School program was developed by a diverse team of educators representing the Maryland Association for Environmental and Outdoor Education (MAEOE), Office of the Governor, the Maryland Association of Student Councils, Maryland Department of Education, Department of Natural Resources and Maryland Department of the Environment. The program is administered through the Maryland Association for Environmental and Outdoor Education.
The Maryland Green Schools Award Program recognizes Maryland schools that include environmental education in the curricula, model best management practices at the school and address community environmental issues.
Among these numerous projects water is a common thread. Hammond Elementary School lies within the Chesapeake Bay watershed which stretches across 64,000 square miles and encompasses the entire District of Columbia. Educational components address habitats, tributaries and, the estuary system. The projects being highlighted in the poster will include:
Trout to Streams Project: This 4th grade project focuses on the natural filtration system that area trout provide to the local and global waterways. As students learn about the importance of various fish to the watershed, they come to understand the effect of changes in the population of fish species due to consumption and pollution. The service learning project highlighted teaches students about water quality as they raise trout eggs and monitor their development into hatching and later stream release.
Buffer Streams Tree Planting Projects: This 5th grade science service learning project allows students to investigate the water quality and conditions of local area streams. This project teaches students the positive and negative effects of human presence on the local and global water supply. Student research scientifically tested ways to slow down the effects of run-off contaminants. Students also revisit water analysis and plant trees as buffers as part of their stream preservation efforts in a culminating activity.
Oyster Reef Restoration Project: As a result of changes in climate, pollution and human consumption, the oyster population in the Chesapeake Bay had previously been on a rapid decline. The Oyster Reef Restoration Project allows students to understand the creatures of the bay and the cause of this decline. They explore the domino effect this has had on the quality of the water in the bay and future implications on the environment when the oyster population fluctuates significantly. Students construct concrete reefs and study the components of its contents and the reef's impact on the bay. Students are responsible for mixing, pouring and preparing the reef for its eventual drop in the bay.
Wetlands Recovery: Following the elimination of a substantial amount of the natural wetlands behind the elementary and middle schools, a wetlands area was erected on the school grounds. This pond has been used to learn about habitats and the role humans, plants and organisms play in the preservation of the earth soil and water supply. This wetland is used by both the elementary and middle schools as a place for hands-on inquiry based learning. Students maintain the upkeep of the pond and teach other students at lower grades.