



Mini Environmental Education

River by river and stream by stream, Pre-K-12 environmental education projects are helping to raise public awareness about the health of streams, rivers, and the Chesapeake and Coastal Bays and about the steps that can be taken to restore and protect them. Through this program, the Trust seeks to increase student awareness and involvement in the restoration and protection of the Bay its local streams and rivers through increasing student access to programs that provide meaningful outdoor learning experiences.

Locust Grove Middle School Field School Watersheds Investigation 2015-2016

LGMS Field School is an experiential learning program for 6th and 7th grade students that are identified as overactive and in need of an active, hands-on, outdoor classroom setting late in the school day. We use field trips and on-campus service learning that is focused on watershed preservation throughout the school year.



A comprehensive school year-long meaningful watersheds experience was conducted on 16 class-size field trips. These trips were to different locations along the Rappahannock watershed its sources in the Blue Ridge Mountains to the tidewater around Fredericksburg. A culminating tidewater overnight experience was had at Triple C Camp near Charlottesville VA.

photographs. The mile long LGMS Mustangs Watersheds Education Interpretive Trail was enhanced around the perimeter of our school's campus. Two billboard-style signs that discuss responsible engineering planning in order to control erosion and chemical pollution as well as what community members can do to prevent non-point source pollution were installed.

50 students participated

200 pounds of trash removed

650 sq. ft. of rain garden installed

3 trees planted

40 native plants planted

On these trips students collected data from macro-invertebrate and stream chemistry samples. This data was compiled on Google apps spreadsheets and analyzed to make stream/watershed health assessments. Students used google slideshows to combine journal writing with the pictures they took on the trips. The slideshows and data was posted on an interactive Rappahannock watershed map on Field School web page on the LGMS website. Students also constructed a wall poster map of the watershed displaying trip locations and

LGMS tech ed and Field School students built, installed and repaired over a dozen blue bird houses along the trail and several nests, many eggs, chicks and adult blue birds have been observed by LGMS students walking the trail. The LGMS track team uses the trail to train on, art students gather inspiration and sketch along it, and other science classes use it for various reasons. The trail is open to the community and it gets a lot of use from community members outside of LGMS students and staff.



MWEE Components

Issue Definition: What is a watershed and how do our actions or inactions, our community and our school affect and/or impact our local Rappahannock River watershed and the Chesapeake Bay?

Outdoor Field Experiences: A school field trip/bus tour to see where Flat Run drains into Lake of the Woods. Then, the bus tour continued to the back side of LOW’s dam. Lastly, the bus took them to Ely’s Ford on the Rapidan River down-stream of Flat Run’s entrance. Effects of development and riparian buffers were discussed. Post field trip lesson on erosion and run-off pollution were conducted using LGMS’s Enviroscope model that is part of the Water Management module in the existing CTE lab.

Student-led Action Projects: During the fall and winter parts of the school year, stone was purchased and delivered from a local source for the perimeter of the 2 existing rain gardens. Students set out the perimeter stones around existing rain gardens to improve appearance and to slow runoff. Over the fall months students worked to remove and loosen soil from the proposed retention area beneath the overflow spout from the cafeteria roof.

Synthesis & Conclusions: Students made an average of 26% improvement on standardized science benchmark tests over this past school year. The goal set at the beginning of the year was 18% improvement. Students are more engaged and lasting memories have been created. This program was instituted for students that were targeted as overactive, having attention issues, or just appeared to their 5th grade teachers as being uninspired by the standard classroom environment. This population has reacted very positively to the hands-on approach.



CBT Funds Awarded:	\$5,000
Chesapeake Bay Restoration Fund:	\$3,020
AeroJet Rocketdyne Foundation:	\$1,000
Target Field Trips:	\$280
Total:	\$9,300

Project Partners:



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