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Sent: Tuesday, December 18, 2018 9:23 AM
To: 'Sherry S. Ragland'
Subject: Conservation Education Newsletter

Peter Francisco SWCD Conservation Education Newsletter

Welcome back for 2nd Semester - January 2019



In this Newsletter...

Recap of first semester programs, field trips and poster contest results

Photo of 7th and 8th Grade Students from Buckingham and Cumberland Middle School who attended James River Headwaters Exploration Camp September 28-30, 2018. Photo taken at Humpback Bridge near Covington, Virginia. The Bridge is the last remaining covered humpback bridge in the U.S. and the oldest covered bridge in Virginia. It spans a tributary of the Jackson River known as Dunlap Creek. The Jackson and Cow Pasture Rivers converge to form the headwaters of the James River.

Pre-school and Primary School

Pumpkins and Pollinators – (SOL Science 1.4, 1.5, 4.4) **Did you know . . .** that a tiny two-winged midge fly makes it possible for us to have chocolate???? Other tiny critters make it possible for us to have pumpkins. Buckingham County preschoolers know! They learned what bats, bees, beetles, butterflies, hummingbirds and flies have in common: they are pollinators and our heroes. They learned the basic parts of a plant, how pollination occurs, some interesting facts about each pollinator, played with pollinator puppets and watched a 4-minute video showing pollinators in action. Then they made their very own “nanananananana” bat mask! (Note: Bats in Virginia are insectivores not pollinators, eating an average of 1,200 insects per hour for a total of 6,000 to 8,000 per night. They eat gnats, mosquitoes, fruit flies, beetles, moths and other flies. While they don’t help provide food for us through pollination, they are still our heroes.)



Elementary School

Incredible Journey (SOL Science 3.9 6.7, LS.7, LS.10, BIO 9)

Third grade students at Central Virginia Christian School learned about the 3 states of matter for water and about the water cycle. Then they took an Incredible Journey . Students divide themselves among 7 stations and roll a die to determine the next station on their journey as a water molecule. They may be evaporated from the Atlantic Ocean, fall down as rain into the James River, then a deer drinks them, then the deer urinates them into the ground and they become part of the groundwater, and then they are purified and pumped up by someone’s well and are used for brushing a child’s teeth. The possibilities are endless and students get a true picture of our wonderful water cycle. At each station students collect a bead and end up making a bracelet showing their Incredible Journey.



Rocks and Minerals/Rock Cycle (SOL Science 4.9c, 5.1, 5.7)

The District provided a station for Southside Soil & Water Conservation District 5th Fifth grade field day in Charlotte Courthouse. The students learned fascinating facts about rocks and minerals. Then they played a rock cycle game where students divide themselves among 11 stations and roll a die to determine their next station on their journey as a rock. At each station they collect a bead and end up making a bracelet.



Middle School

Macroinvertebrates (SOL Science 6.7, LS.7, LS.10, BIO 9)

In October, Ms. Harper's 6th grade science classes sifted through leaves taken from Taylor and Green Hill Pond at James River State Park looking for macroinvertebrates to help determine water quality. Normally students would be comparing macroinvertebrates found in leaf litter from above and below the park to see if James River State Park had any negative affect on the water quality of the James River. The James River was so high and swift due to rain it was dangerous to collect leaf litter, so the ponds were the best alternative. Students found a wide variety of critters like scuds, stonefly and mayfly nymphs, crayfish, damselfly and dragonfly mymphs, adult rifle beets and aquatic worms. The conclusion: both sites had excellent water quality. Special thanks to Ruth Wallace from Buckingham VCE and Tiffany Franklin from James River State Park for helping to bring this exciting program to the classroom.



James River Headwaters Exploration Camp (SOL Science 6.1, 6.5, 6.7, LS.1, LS.2, LS.4, LS.5, LS.8, LS.9, LS.10, LS.12, PS.1, PS.2, PS.7, BIO.2, BIO.8) – The District teamed up with Buckingham and Cumberland Cooperative Extension to give 7th and 8th graders from Buckingham and Cumberland County Middle Schools an opportunity to attend James River Headwaters Exploration Camp – September 28-30. Thirty-six students participated. The group stayed in cabins at Camp Accovac in Millboro, VA, netted and identified critters from a vernal pool, explored the dam and hiked at Douthat State Park, viewed the Jackson and Cow Pasture Rivers that meet to form the headwaters of the James, canoed at Camp Accovac, visited Humpback Bridge, viewed a waterfall at the Lower Jackson River, walked across the Cow Pasture River on a swinging bridge, and explored Natural Bridge (Caverns, Bridge and Monacan Village). The camp was a great success. Funds for this camp were provided through a grant from the Chesapeake Bay Restoration Fund which raises money through the sales of Chesapeake Bay license plates. To purchase a plate, visit www.dmv.state.va.us/vehicles/#splates/info.asp?idnm=CB



Exploring Natural Bridge Caverns



Swinging Bridge – Cow Pasture River



Canoeing at Camp Accovac



Vernal Pools Program – Douthat State Park



Waterfall – Jackson River

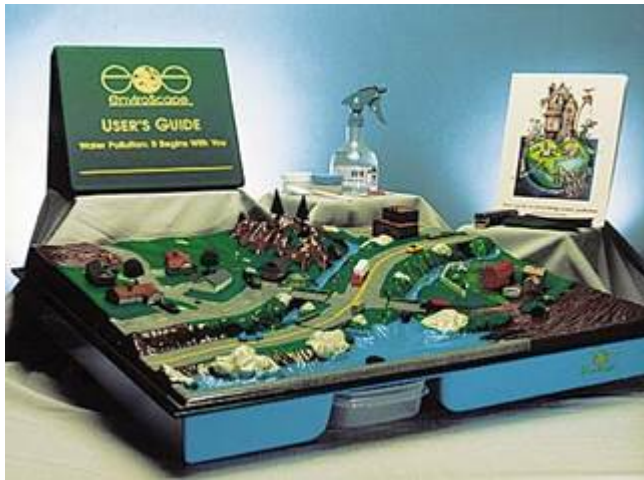


Zip lining at Camp Accovac



Monacan Indian Village

Meaningful Watershed Educational Experience (MWEE) (SOL Science 6.1, 6.5, 6.7, 6.9, English 6.7, 6.8, Math 6.2, 6.14) Students at Central Virginia Christian School participated in a Meaningful Watershed Educational Experience during the months of October and November. The District offered a series of four programs in which students learned about the James River and Chesapeake Bay Watershed, their watershed address, received an Enviroscape demonstration, performed chemical and physical water quality monitoring of Whispering Creek (part of the school's watershed), did a macroinvertebrate count with leaf litter from Whispering Creek and learned about erosion. Students tested for pH, phosphates, nitrates, dissolved oxygen, temperature and turbidity which is water clarity. The results: Whispering Creek has between good and excellent water quality to support aquatic life.



High School

9th Grade Field Day (SOL Math A.1, A.4, A.6, A.9; Science BIO.1, BIO.3, BIO.7, BIO.9) –Mrs. Page, a math teacher at Buckingham County High School signed up for an SL-6 practice with the District to fence cattle out of the water. She and our Conservation Specialist, Kelly Snoddy, got to talking while watching their children play soccer and brainstormed this 9th Grade Field Day at the Page Family Farm in October. The day was a great success with 110 students participating and a wonderful collaboration among agencies. These were the agencies who participated and the station each headed up:

- Surveying where fence should go for SL/6 practice– Raleigh Coleman/Amanda Pennington with Department of Conservation Resources
- Calculating and measuring slope to water – Ruth Wallace, Buckingham Cooperative Extension
- Weed ID/Pasture Management – Jennifer Ligon/Amber Anderson, Buckingham & Cumberland Cooperative Extension
- Forestry – Matt Hall and Chad Wisecarver, Virginia Department of Forestry
- James River State Park (Chaperone) – Tiffany Franklin, James River State Park
- Water quality testing of pond – Elise Corbin, Peter Francisco SWCD
- Soils – Louise Jacques from NRCS
- Hunter Safety or whatever program Game and Inland Fisheries can offer – Sgt. Tim Dooley or designee

- o Virginia Association of Soil and Water Conservation Districts Booth (Envirothon, Youth Conservation Camp, Scholarship) – Bonnie Mahl
- o Nutrient Management – Kevin Dunn, Peter Francisco SWCD/Piedmont SWCD

The event was so successful we hope to duplicate it this spring with 9th Graders at Cumberland County High School.



Field trip to Lynnhaven River and Chesapeake Bay (SOL Science 6.5, 6.7, LS.7, LS.10, PS.1, PS.2, ES.11, BIO.1, BIO.3, BIO.9, CH.1, PH.1) – In October, Cumberland County High School biology students and Envirothon team members (taught and coached by Mr. Trae Shidell) participated in this field trip. In November, Buckingham County High School Ecology/Environmental Science students from Mrs. Kris Stewart's class and Envirothon Team members (coached by Mr. Andrew Schmitt) participated in this field trip to Virginia Beach. Students toured the Brock Environmental Center, boarded a 40-foot boat and explored the Lynnhaven River and Chesapeake Bay. They trawled for fish, pulled up crab and eel pots, performed water quality monitoring and explored marshlands. For many students it was the first time they saw the

Chesapeake Bay. The District received a grant from the Chesapeake Bay Restoration Fund to pay for these field trips. The grants are funded with monies from the sale of Chesapeake Bay License Plates.



Envirothon Team planned to participate in Dillwyn Christmas Parade

The Buckingham County Envirothon team planned to participate in the Dillwyn Christmas Parade on December 16, but the parade was cancelled due to inclement weather. Team members wanted to raise awareness about the Envirothon. Peter Francisco Soil and Water Conservation District is pleased to provide support for the Buckingham and Cumberland County High School Envirothon Teams. The Virginia Envirothon, sponsored by Dominion Energy, is a team-based, hands-on environmental problem-solving competition for high school students. The competition includes a current environmental issue and oral presentation as well as aquatics, soils, wildlife and forestry elements. Students have an opportunity to work with natural resource professionals and many team members end up with careers in the environmental field. The District also sponsors students for Forestry and Youth Conservation Camp and awards college scholarships. A special thanks to Andrew Schmitt from BCHS and Trae Shidell from CCHS for serving as coaches for their high school Envirothon team.

All Grade Levels

Poster Contest Results



PFSWCD'S 2018 Poster Contest – "WATERSHEDS Our Water, Our Home" was judged in October and the winners are . . .

CATEGORY	PLACE	STUDENT NAME	COUNTY/SCHOOL	PRIZE (WALMART GIFT CARD)
K-1	1st	William Davis	Buckingham - Central Virginia Christian School	\$15
	2nd	Shelby Walker	Buckingham - Central Virginia Christian School	\$10
2-3	1st	Evan Shumaker	Buckingham - Central Virginia Christian School	\$15
	2nd	Collin Snoddy	Buckingham – Buckingham County Primary School	\$10
	3rd	Dallas Davis	Buckingham – Central Virginia Christian School	\$5
4-6	1st	Natalie Sullivan	Cumberland – Cumberland County Middle School	\$25
	2nd	Maya Bell	Cumberland – Cumberland County Middle School	\$15
	3rd	Piper Scialdo	Buckingham – Central Virginia Christian School	\$10
	Hon M	Ethan Freeman	Buckingham – Central Virginia Christian School	\$10
7-9	1st	Grace Dunkum	Buckingham – Buckingham County High School	\$25
	2nd	Twylia Young	Buckingham – Buckingham County High School	\$15
	3rd	Emily Roach	Buckingham – Buckingham County High School	\$10
10-12	1st	Katyia Brown	Cumberland – Cumberland County High School	\$50
	2nd	Tiera Butler	Cumberland – Cumberland County High School	\$30

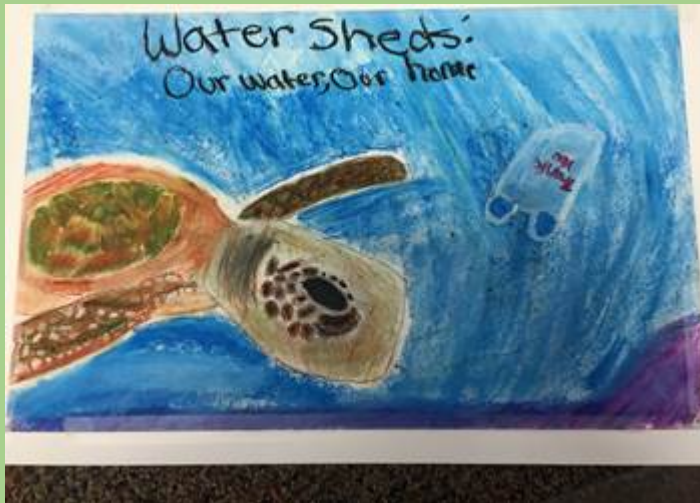
	3rd	Minha Shin	Cumberland – Cumberland County High School	\$20
	Hon M	Kristen Caleb	Cumberland – Cumberland County High School	\$20



K-1 Winning Poster, William Davis, Central Virginia Christian School



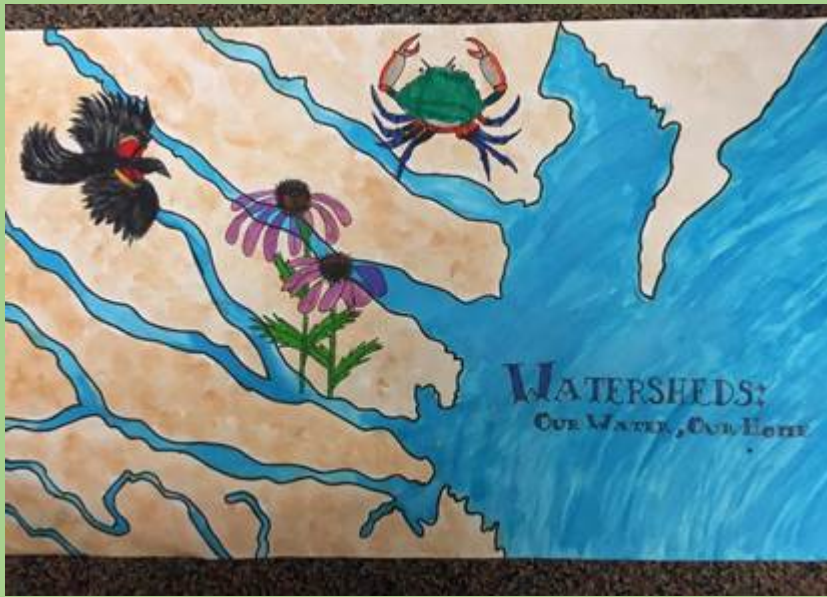
2nd & 3rd Grade Winner, Evan Shumaker, Central Virginia Christian School



4th – 6th Grade Winner, Natalie Sullivan,
Cumberland County Middle School



7th – 9th Grade Winner, Grace
Dunkum, Buckingham County
High School



10th – 12th Grade Winner
Katya Brown
Cumberland County High School

A special thanks to Buckingham and Cumberland Cooperative Extension Staff for serving as judges.

For more information about the contest as well as photos of the winners and their posters, visit the PFSWCD website at <http://peterfranciscoswcd.org/poster-contest/>

Free SOL-based Environmental Programs



*The District would like to thank you for investing in our youth and support your educational efforts by offering **free** SOL-based environmental programs in Buckingham and Cumberland Counties. Our programs always have a hands-on component to make learning fun for the students. During the month of August, we distributed information by grade to all lead teachers and science teachers in Buckingham and Cumberland Counties outlining the*

programs we offer. If you would like your own copy, let me know and I'll be happy forward the information to you. Remember, we can tailor a program to meet your needs. Also, if you want a field day with several stations for an entire grade level, we will be happy to coordinate with Buckingham and Cumberland Cooperative Extension Offices, Virginia Game and Inland Fisheries, Virginia State Parks and Virginia Department of Forestry to make it happen in the school yard or at a local State Park. The District also has a wealth of conservation education resources available for teachers to check out and use for their classrooms. For more information on the programs and resources we offer, visit our website at <http://peterfranciscoswcd.org/education/education-resources-links/>

Congratulations on completing 1st Semester

We look forward to working with you in the New Year.

Questions & Comments

Want a program, have an idea, suggestion, or comment? We're always looking for feedback on how we can better support you.

Email Peter Francisco SWCD Conservation Education Coordinator, Elise Corbin, at elise.corbin@vaswcd.org or call 434-983-7923.

Virginia's Envirothon program and Peter Francisco's educational programs are also supported through the Chesapeake Bay Restoration Fund.

Proceeds from the sale of the Bay license plates help citizens keep the bay healthy by restoring wetlands, planting buffers around waterways, promoting marine life restoration, decreasing pollution and providing educational programs like Envirothon. To purchase a Bay license plate visit: <http://www.dmv.state.va.us/vehicles/#splates/info.asp?idnm=CB>

Peter Francisco Soil & Water Conservation District · 16842 W. James Anderson Highway· Buckingham, VA 23921 · USA