

March 2015

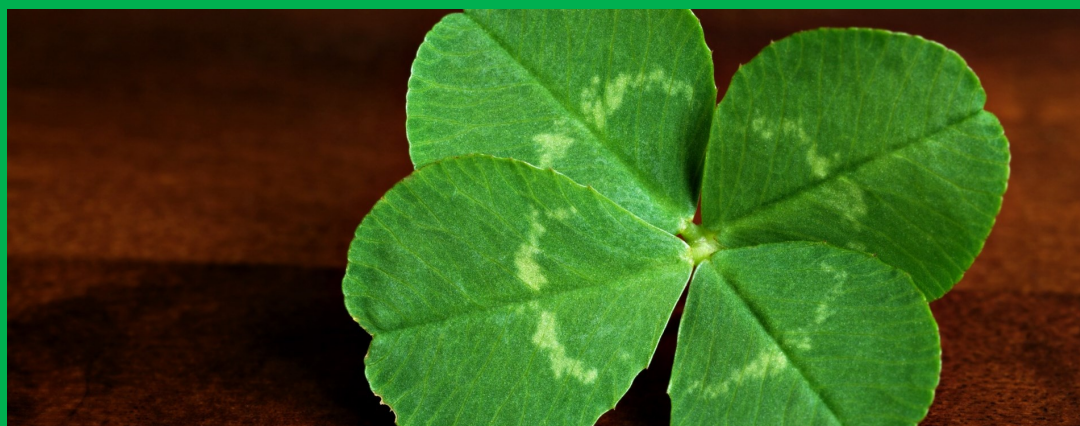
4-H GROWING SCIENCE

POINTS OF INTEREST:

- STEM LEARNING INSTITUTE 2015 REGISTRATION CONTINUES!
- AQUACULTURE AMERICA 2015
- RTC STUDENTS SHARE THE IMPACT OF HORTICULTURE
- 4-H MAKER EDUCATION EXPANDS TO SURROUNDING COUNTIES
- RICHMOND CITY 4-H DAY AT THE STATE CAPITAL!
- COMMUNITY ENGAGEMENT



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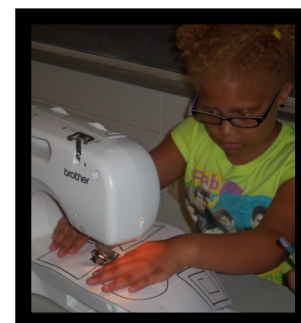
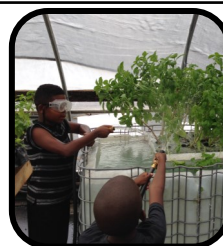
VIRGINIA COOPERATIVE EXTENSION

FREE 4-H STEM LEARNING INSTITUTE REGISTRATION CONTINUES!



Growing 4-H Science is elated to be able to offer the 2015 4-H STEM Learning Institute **FREE** of charge for the community! The institute will be held **June 22 - August 6, 2015**, and reach students age 7-13. Students will learn the building blocks of the STEM program which are: Science, Technology, Engineering and Math. They will also learn science through the design and creation of physical prototypes. Reserve your child's spot for one of the tracks so they can experience the fun of learning by doing! Registration has begun so reserve your spot today! Please contact Sarah Morton, sarahm72@vt.edu or Stephanie McNamara, stepham@vt.edu for more information.

- * Animal Science/ Embryology
- * Environmental Science/ Ornithology/ Entomology
- * Food Chemistry
- * Aerospace
- * Robotics
- * Electricity/Cabling/ Wind Energy
- * Textiles
- * Maker/ Woodworking
- * Digital Media/ Videography
- * Aquaculture/



Aquaculture American 2015

By: Chris Jones



Richmond City Horticulture specialist shares amazing take aways and photographs from Aquaculture America 2015

As a horticulturist and an educator, participating in Aquaculture American 2015 in New Orleans, Louisiana was extremely fruitful and rewarding. One unifying theme to successful aquaculture programs is a willingness of administrators to experiment and support new innovative programs. From Alberta, Canada to The University of the Virgin Islands, successful programs have two common themes; funding and energetic educators.

They suggested we get high energy science teachers to implement the classroom models that we have discussed recently. Their program pays for itself but takes a lot of man hours and is 7 days a week. For the last three years, one Florida group of educators have supplied leafy greens to their cafeterias to support their aquaculture program. They said the key to their overall success was the enthusiasm from the students and the support from the administration.

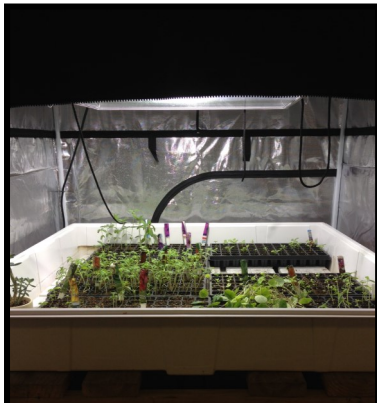
One of my most rewarding findings of the conference was visiting with Charlie Shultz from the University of the Virgin Islands and Lethbridge College. Mr. Shultz successfully pioneered a program in the Virgin Islands 15 years ago in which his educational model (a pay to play program) included a system warm enough to house the aquaculture systems outside. Later, he went to work with research in Alberta, Canada at Lethbridge College, where he remains today. During our conversation, we recognized that our programs aligned from a scientific perspective. We exchanged ideas and realized that we both had much to discuss and exchange professionally. Further, we exchanged ideas on removing fish waste from aquaculture systems, degassing, and changing said waste into a usable fish emulsion fertilizer. This would allow for quantification and application to plants on a repeatable level where farmers can make money.

This approach integrates the two organisms (plants and fish) without having them be directly connected through sharing waste. This process may also alleviate concerns from the USDA about food safety as positive microbes would be used as ammonia reducers. He was really enthused about what we are doing in Virginia. Additionally, he shared information regarding the optimist club for scholarships at the University of Kentucky for one of my star students, Ramon Baptist. This was a fantastic networking opportunity for myself, students, and the aquaculture program at Richmond Technical Center.



Student Impact Corner ~

Richmond City students share experiences of how Growing 4-H Science programs have impacted them in and outside of the classroom



Horticulture students continue to nurture herbs and plants in the custom built Gorilla Tent



Dear Virginia Cooperative Extension,

We have learned skills in Mr. Jones class like team work, communications, and problem resolution. With these skills we have become better students and citizens. Projects such as a greenhouse renovation, spring plant sale and cat fish production were extremely beneficial to us as students. We learned team work and resource management skills while working in the greenhouse. Activities such as planting desert rose, building hydroponic tables, and the spring plant sale will be good memories for us for years to come. This class has been really fun and educational. We think Mr. Jones is an excellent teacher. He really knows how to teach and lead a class.

Rule number two of the class is respect and respect is something Mr. Jones always gives. We respect Mr. Jones because he gives 110% effort in whatever he is doing. This class changed our life! Thanks [Mr.] Jones!

Derek Joyner and Chris Taylor
(Horticulture students - Richmond Technical Center)



Catfish tanks are constructed and fully functioning due to persistence of RTC Horticulture Students



Growing 4-H Science Maker Fests

By: Paul Lambert



This spring Growing 4-H Science has provided support for local community and military partnerships in bringing 4-H Maker Festivals to Central Virginia. The 4-H Military Maker Festival held at the Defense Supply Center on February 7th introduced 4-H



robotics, and woodworking as well as build towers, windmills, and roller coasters. Maker workshops during the afternoon allowed youth to build projects they could take home for further exploration. Based on the success of the event, parents and volunteers

Maker to youth and their families from all branches of the military. The Lott Convention Center hosted the comprehensive maker festival featuring some of the best examples of 4-H experiential learning activities. 4-H youth volunteers were responsible for facilitating these hands-on activities with festival participants. Special guest Brigadier General A.C. Roper shared his enthusiasm for youth in military families participating and learning through 4-H Maker activities.

Powhatan County Library and the Powhatan County 4-H extension agent, Cathy Howland, hosted a 4-H Maker Festival on February 21st, attracting over 600 visitors. Local organizations, schools, and government agencies were active participants and supporters of the maker festival. A steady snowfall did not deter families from spending the afternoon at the library engaged in maker activities. Adults and youth of all ages were able to experience 3D printing,



are planning to bring more 4-H Maker activities and clubs to families and youth in Powhatan County.

During the month of March, Growing 4-H Science will present two hands-on professional development workshops on 4-H Maker Education. Local agents within Virginia Cooperative Extension will experience how maker education can be effective in aligning educational and community needs. Attendees at the National Afterschool Association Convention will actively participate in and learn how to facilitate maker activities that can help bridge the learning gaps between formal education and informal education during out-of-school time.



4-H Day at the State Capital

By: Brittany Council



“WOW! On Tuesday, February 24th, 2015 over 100 students from schools within Richmond City attended 4-H Day at the Capitol. This was an opportunity for students to meet with legislators, enjoy a tour of the Capitol grounds, sit in on a Senate hearing, and see some of the best commodities Virginia has to offer. Students

from Boushall Middle School, MLK Middle School, and J.L. Francis Elementary school meet with Delegate Loupassi, Delegate Morrissey, Delegate McQuinn, Delegate McClellan, Delegate Carr, Senator McEachin, and Senator Dance. Students from J.L. Francis enjoyed a visit with City Council in which they learned how to conduct elections. Governor McCauliffe was one of the many



government officials on the Capitol grounds as legislators set out to session, however in the midst of such a busy day the Governor made time to take a phot with our youth. As youth toured the Capitol, one question that was frequently asked “Who are the other kids all dressed up?” These young men and women of middle and high school age, were in fact pages for delegates. Once students learned that they were seeing their own peers serving in such a high role they quickly inquired as to how they can become pages. 4-H Day at the Capitol had such a huge impact on all youth from across the Commonwealth but more so those within Richmond City. As I look ahead towards next year I look forward to seeing some of our city’s youth as Capitol pages.”





**Growing
4-H
Science**

STEM
SCIENCE • TECHNOLOGY • ENGINEERING • MATHEMATICS

To Make The Best Better
Engage | Educate | Empower

Richmond Growing 4-H Science Team

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Paul Lambert, Maker Educator

Christine Baum, Program Educator and Master Gardener

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Ashley Pryor, Health Rocks! Educator

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Engage, Educate and Empower!



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Community Engagement



- Celebrate National Nutrition Awareness Day
Friday, Mar. 13, 2015
- Extension Master Gardening Presents,
Vegetable Gardening
Main Library,
Mar. 9, 2015
6:00 PM - 7:00 PM
- National 4-H
Conference
Washington, DC
Apr. 6 - Apr. 11, 2015

- Save the Date:
Richmond VCE
Urban Food Desert
Symposium: Increasing
Access to Healthy and
Affordable Food
Apr. 29, 2015,
9:00 AM- 2:00 PM
- 4-H State Congress
Blacksburg, VA
Jun. 15 - Jun. 18, 2015
- *Growing 4-H Science*
Summer STEM
Institute 2015
Jun. 22 - Aug. 6, 2015
- 4-H Intermediate
Congress
VSU Campus
Jul. 13 - Jul. 17, 2015
- Save the Date:
4-H Junior Camp
Aug. 10 - 14, 2015

Celebrate National Nutrition Month

Healthy food choices and an active lifestyle can have a big impact on your heart's health. Just a few steps and you can be on your way to a healthier heart:

- Regular, moderate physical activity lowers blood pressure and helps your body control stress and weight. Be physically active in your own way. Start by doing what you can, at least 10 minutes at a time. Always check with your physician before beginning a workout regimen.
- Eat more fruits and vegetables. One good goal is to fill half your plate with colorful fruits and vegetables every meal.
- Eat less salt by preparing foods at home so you can control the amount of salt in your meals. As you prepare meals, use as little salt as possible. You can cut at least half the salt from most recipes. As you shop, select reduced-sodium or no-salt-added canned soups and vegetables.
- Eat whole grains. Not only do they provide vitamins and minerals, but whole grains also contain dietary fiber, which may help reduce your risk of heart disease, cancer, diabetes and other health complications.
- Regularly eat fatty fish including salmon, lake trout, albacore tuna (in water, if canned), mackerel and sardines.
- Eat fewer foods with saturated fats, trans fats, cholesterol, added sugars and refined grains.

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Digital Media partners with Richmond City Parks & Recreation to help launch programs within Hickory Hill and Bellemeade



The 4-H Digital Media program ignites young people's Creative Confidence. It helps them develop skills to solve problems and equips them with 21st century tools empowering them to find their voice and make it heard. The program also provides youth with the inspiration, training and technology to create original media

works on issues they care about. Participants hone skills of self expression, ideation, collaboration flexibility and persistence; the skills we regard as central to Creative Confidence.

