Good afternoon … and thanks for joining us … I'm Judy Simpson. Each year on Across the Fence we share with you a number of programs that focus on the UVM Extension 4-H program. As we close out 2011, we’re going to look back at some of the 4-H programs of the past year. Based on your feedback, one of your favorite episodes involved the 4-H After-School Forensics Program. Rebecca Gollin tells us about a group of future forensic scientists:

Nat Snd: This is a male skull, the eye or orbital tends to be a little more on the square side.”
Meet Winooski’s youngest detectives…
Jarel Sinclair/ Forensics Student: “When we did all the calculations we needed to do w the calculator, I found out the person was 5.5.”
They’re checking out the evidence… and asking the difficult questions… (nat snd, “why isn’t it working?”)
Bradley Senna/ Forensics Student: “.. if the bones placements are different sometimes, if you like dig them up or something, if they're in different places, you can tell like uh, that the killer probably killed them over here and probably brought them or something.”

What may be even more surprising than the age of these sleuths is that their after-school forensics program is part of 4-h.
Rose Garritano/UVM Extension, 4-H Educator: “The 4-h program that most folks think of is the club model, but actually a great deal of our youth dev planning is through short term special interest groups.”
Jenn LeBlanc/Forensics Instructor: “I saw an ad for being a 4h instructor, and it’s kind of weird for me to think about doing that because I remember going to 4h as a kid and getting together and sewing and some other things, and always dairy, in VT, so I was just like 'well, I’m sciencey and I have stuff to teach kids,
so I’ll throw it out there, and when I put down forensics they kind of jumped on it.”

Program facilitator Jenn LeBlanc is a forensic scientist. She worked with University of Vermont Extension Program to develop the curriculum for the class.

Garritano: “Once I have somebody willing to run a 4h program and I’ve met with them and we've done a little bit of training, I contact schools and after school programming sites and let them know I have somebody interested in running a program, what kind of opportunities do you have to partner?

Russ: “We plan enrichment activities and academic support activities for kids k-12.”

Barbara Russ oversees the twenty-first century grant, which supports afterschool programming in the district.

Barbara Russ/ 21st Century Grant Director – Winooski: “I was contacted by the 4h program who was interested in having some of their 4h educators work at our school in our afterschool program... and this was a program that kids had expressed an interest about, and so when I told them that we were going to be able to do this, they signed up and are now saying that they would like to continue.”

Jarel: “Right now we're just analyzing different bones from turkeys, humans, little baby bones and stuff.”

Bradley: ”We're working with ribs, we just worked with Eula, and this is a uh, part to the leg... we were measuring ... how tall they were and stuff, to see if they go to the same person, and we found out that they do go to the same person cause they're all 5.5.”

Jarel: “It's really fun... everything we've done so far is fun - we've done the fingerprinting that they're doing over there, we've done blood drops, and we’ve done bugs”

Don’t get the wrong idea, though – except for some turkey bones, most of the evidence is not real.

LeBlanc: “I have little fake maggots, cause in the winter I can't do real maggots but if it was in the summer, I'd try to actually produce some maggots for them... some of them like it and some of them don’t... the bugs - they're a big deal... Blood splatter! that's the other one! so, it's not real blood... I make this like fake blood concoction thing, it’s like bright red, so obviously not real blood. anyway, there’s angles, and they drop the blood on it to see how it would change the way it is shaped, cause blood splatter tends to be about the shape and the trajectory, and it’s all very complicated.”

It may be complicated, and occasionally gross, but that’s not scaring these kids away...

Bradley: “I think it’s like one of my favorite classes, it’s like the only classes I really like... its just fun and you get to learn a lot of other stuff.”
LeBlanc says one of the most important things the kids are learning is the difference between real crime solving, and the kind they see on TV. Leblanc: “They watch all the shows and it’s kind of weird, because real forensics is a lot different, so I think that this way they get to learn what the differences are and how challenging it is to pull fingerprints and that kind of thing, and how you actually calculate the bones, it’s not some 3-dimensional spinning image that magically appears, you know, it's really challenging, it's real science.”
Its real science and real learning, and these kids wouldn’t have it any other way.

Jarel: “My mom and my dad would watch shows like CSI, and I would just sit there and watch it with them, and ever since then, I've been into forensics and things like that.”

Bradley: “I've watched a lot of TV shows about this and this is like the thing I love the most. I've always wanted to be a forensics detective.”

Nat snd: “it could be this one right here, oh, they're dirty...”
Sometimes a dirty job is what it takes to connect kids with science... In Winooski, I’m rg with atf...

[Judy] 4-H is all about the kids, but UVM Extension also provides hands-on training to a variety of teachers. For more on that aspect of 4-H we hear from Keith Silva:

This 4-H workshop went pretty much by the book. It’s about how home-school and after-school teachers can include 4-H’s science curriculum into the school-day.

Most often science education has the content and forgets the youth development piece.

While 4-H educators made presentations, participants listened and took careful notes. And when it came time for 4-H educator Debbie Fajans to speak only then did the colored toothpicks, tinfoil, and pinwheels come out.

Our job today is to design a better pinwheel.

This demonstration is designed to show teachers how they can include a ‘hands-on’ activity into formal content-based education. In this case, literally, turning a pinwheel into a lesson about energy and engineering.

Deb Fajans/4-H Educator: although teachers are doing a really fine job teaching to science standards, they are focusing in on just content which we feel can be improved by adding the 4-H elements of experiential learning. Teachers are really pressured to do things in a quick and expedient way, but we have proven that in teaching in this combined way the children learn better they form their own extensions of thinking to the content that’s being taught by adding the 4-H elements of experiential learning.
Across the Fence profiled Fajans’ work at the Kurn Hattin school in Westminster. Students there learned about genetics by getting a hands-on opportunity to graft apple trees.

Dylan Conklin/Kurn Hattin School Student: You can go and look at it in a textbook, but you’re not going to get the experience of grafting from a textbook.

Aaliyah Olmo-Gilmore/Kurn Hattin School Student: Well there’s nothing like it except for actually doing it in person you can’t ever get it without really doing the experience and it’s better because a hands-on activity I feel like you learn more and you actually get to see things and pick things out and it calls for a better conversation with the class and everything.

Fajans track-record of success combining content-based science standards with 4-H’s hands-on approach has been proven out in the ultimate final analysis, test scores.

Fajans: the first thing I see and everyone can see as well is the joy of learning and then in test scores afterwards they really do retain the subjects and the elements that I have taught because it’s imbedded in them in a different way. It’s not just mind think, but they have embraced it and made different connections that enforce that.

4-H’s approach to learning science complements how the home-school parents at this workshop teach their children.

Jen Higgins/Home-School Parent: our home-schooling model is that as our kids become excited about things we follow their lead and bring in resources that help support what they’re interested in help learn about what they are interested in and so as a home-schooling parent you have to have a big cache of resources and information to be able to support that.

Len Boston / Home School Parent: the application is good rather than read your chapter and finish your test because that’s not true learning that’s an introduction, but mastering the thing takes hands-on a lot of times as a feedback.

Along with demonstrating how 4-H’s science curriculum can enliven even the stuffiest science lesson these 4-H educators are also trying to change people’s perception of 4-H.

Lauren Traister/4-H Educator: 4-H is a tremendous resource in all communities in Vermont and across the country and many people don’t think of us as a resource in science, again because they’re stuck in this old concept that 4-H is an agricultural program. We’re really hoping that 4-H is a resource for schools and afterschool’s and home-schoolers to reach out and partner with us and that we really can help them advance their mission of quality science and we can then ultimately we all have the same goal of improving our youth science abilities it’s a win win all the way around.

Mike Ducharme/Para-Educator Barre Technical Center: I guess my correlation with what 4-H brought to kids or what kids brought to 4-H was through animal
training or dairy products or just farming in general. There’s a much more broad diverse focus here and it brings in a much larger group of individuals. Curiosity brought me here. Curiosity’s going to walk me out the door. I’m going to continue to be curious and I’m going to bring that curiosity into my school and allow the kids to become curious as well.

You might say that at this workshop 4-H is putting a new spin on science and the new way for 4-H to educate Vermont children. In Burlington, I’m Keith Silva with Across the Fence.

[Judy] One of the best parts of my job is meeting all the 4-H kids who come to the studio … and one of the most impressive 4-H clubs I visited with this year was a Poultry Club from South Burlington called the Feathered Friends. The kids had worked hard, and they knew just about everything related to poultry – even if the birds didn’t want to cooperate:

Noelani.: we can tell she's an airacona because of her blueish feet.
Judy.: Is she going to two run away? OK.
Noelani.: She is a flat comb which is called a p comb. We also think she might be part bantam dishes feathers on her legs. She's a female so she does not have sickles feathers.
Judy.: OK which are the longer feathers?
Noelani.: Yes sickles feathers are the ones that cheeky has that curl up.
Judy.: OK tell me the difference on this one obviously they look different but what are some of these other things. There we go come on now.
Noelani.: Cheeky is a male and has comb. It's kind of like a crown and he's definitely arcana because she has big cheeks and greenish blue feet.
Judy.: Let's see his greenish live feed the almost look like dinosaur feet.
Noelani.: Yeah.

[Judy] Many of those kids will continue with 4-H into their teenage years … and as they mature the 4-H program will continue to provide them with positive opportunities and life skills. Keith Silva found those aspects of 4-H when he reported on the Vermont 4-H Youth Environmental Council:

It takes more than a little rain to dampen the spirits of 4-Hers … especially when they’re trying to raise the public’s awareness about an important issue. Nat. Snd.: “Would you like a pamphlet about safe cosmetics? Cool!” These young women are members of the 4-H Youth Environmental Council. They’re on Church Street in Burlington to educate the public about the hidden dangers in cosmetics and cleaning products.
Kayla Ray/4-H Youth Environmental Council: “I guess we’re hoping that the public will become more aware of the type of toxins and chemical products that
are in things that we put on our body every day. Not only lipstick and other cosmetics, but body wash, shampoo, conditioner just you look at the ingredients list and it looks like the ingredients of a chemistry lab.”

Nat. Snd.: “When it says natural on a product there’s absolutely no regulation for that. Really?”

Dan Bradley/Burlington, VT: “There were things that I hadn’t heard before which was always good. You use this stuff every day you use half a dozen of these kinds of things every day, this stuff builds up and that was something you don’t really think about, you think about that one time use and that was a point that stuck with me.

Terra Nicholson//Burlington, VT: “They said look at the ingredients instead of just going by the label saying natural because fragrance can include things that are that are toxic which is something I did not know.”

The 4-H Youth Environmental Council is member-driven. It’s a chance for teenagers to focus their energy on a topic that interests them and also has an impact on their communities.

Lauren Traister/UVM Extension 4-H Educator: “This particular program is geared towards teens specifically teens who are interested in learning about citizenship, how to engage in your community and specifically around an environmental issue.”

Sierra Frisbee/4-H Youth Environmental Council: “I find 4-H to be really empowering. For me, as a young person, you know, but also a young woman and it helps me find ways to channel like the activism that I want to be involved with. We’ve come up with all these ideas of, you know, what topic we wanted to study so it’s all really self-piloted, it isn’t somebody else telling us what to do, this is what we’re going to do now. This matters to us. Let’s do this. This seems like a good idea. All like really student based so that’s what I like about it.”

Ray: “I feel like definitely one of the biggest things I’ve gained from this whole experience is making connections with the community. A big part of 4-H is learning how to be a better citizen and it teaches citizenship and I think that going out into the community and making these connections and educating the community is a great way to better yourself and be a better citizen.”

Each of these young women has a personal stake in raising public awareness about this issue.

Ray: “There’s a lot of peer pressure of there to try to look best. My mom always tells me like wear eye shadow and stuff because it will make your eyes look bigger, you have such pretty eyes you should bring them out and it’s like if I have such pretty eyes why can’t I just like kind of show them the way they are. Frisbee: “You learn how to get support from other people. You learn how to talk to adults. How to talk to businesses. And you learn pretty much a lot of skills that will apply. Hopefully to me, specifically in the future in regards to
environmental activism because that’s what I want to go into in college, but just good life skills, people skills, in general. We make some really cool things happen in pretty short amounts of time. For these young women … the 4-H Environmental Council is about engaging with the public, raising awareness, and a group where ‘cool things happen’. In Burlington, I’m Keith Silva with Across the Fence.

[Judy] Thanks, Keith … and thank you for joining us. That’s our program for today. I’m Judy Simpson … I’ll see you again next time on Across the Fence.

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