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Alana Jacobi and Elise Hartung work together programming their first Lego Mindstorms EV3 robot at a 4-H Robotics kick-off event in Jackson County. Photo credit: Zach Spicer, The Tribune.



INDIANA 4-H FOUNDATION

SPRING 2016
NEWSLETTER

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Sharing the impact and building support for Indiana 4-H Youth Development

The Indiana 4-H Foundation is thrilled to be back in your mailboxes with a fresh, new look! We are here to keep you up to date on the latest happenings with the Foundation and the 4-H youth programs that all of you help us support across Indiana. Thank you all for staying in tune with the Foundation by giving your newsletter a quick read. This is where you'll read stories about inspiring 4-H youth, learn the latest on the programs the Foundation supports thanks to its generous donors, and find information on upcoming events.

In this issue you will learn about some of the growing 4-H Science mission area programs like 4-H Robotics and Teens as Teachers.

We would love to hear from you, too, so please connect with us via our Facebook page: Indiana 4-H Foundation, by following @IN4HFoundation on Twitter, or by calling 765-494-8483.

Thanks for welcoming the Indiana 4-H Foundation back to your mailbox!

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GROWING 4-H ROBOTICS PROGRAMS

Thanks to Duke Energy Foundation 16 new counties are kicking off 4-H Robotics

In 2011, Lilly Endowment provided the first significant funding that allowed Indiana 4-H to provide robotics kits to launch programs in a few counties. Five years later, Indiana 4-H Robotics programs are present or starting in 60 of Indiana's 92 counties. Thanks to a \$60,000 grant from Duke Energy Foundation, Lego Mindstorm EV3 robotics kits were purchased for an

“Thanks to a \$60,000 grant from Duke Energy Foundation”



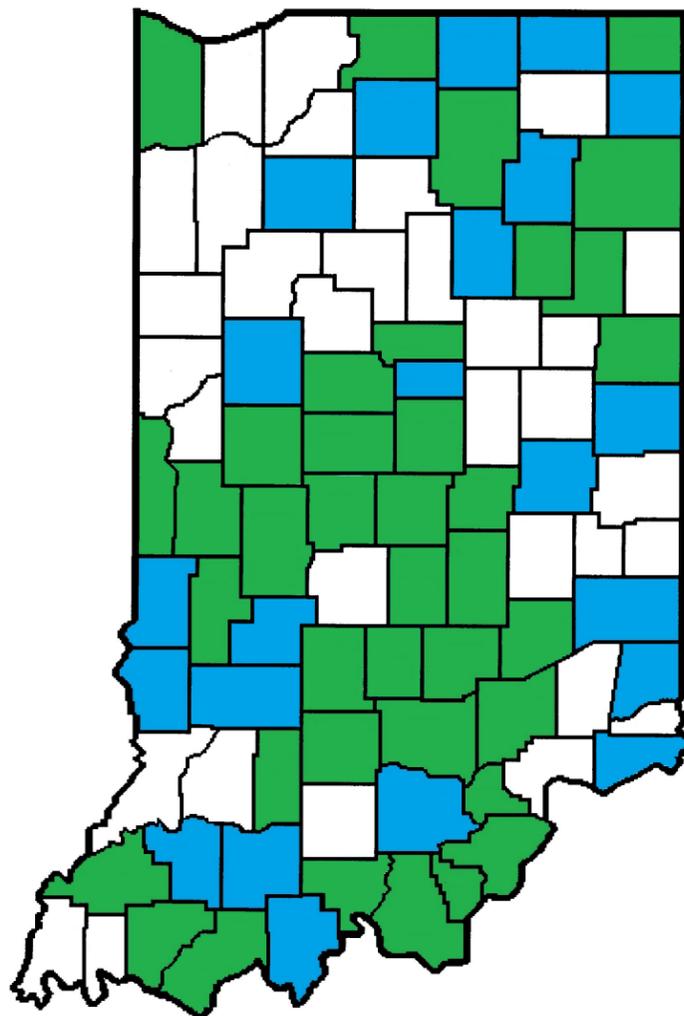
additional 16 counties this year alone. Those kits will continue to be used for at least 5 years.

Lego Mindstorm EV3 robots are assembled from an 800 piece kit of an already well-known children's toy, Legos. The created robots pair with WiFi enabled devices so that individuals learn programming and computing skills in order to operate their robot. These interactions increase interest in science, technology, engineering, and math, and participants interacting with 4-H Robotics develop critical 21st century skills like problem solving, engineering design, and communication. Most clubs operate in teams of youth and progress is observed and new skills learned as they work together to complete specific challenges and tasks.

To kick-off the new 4-H Robotics Clubs across the state, many counties are hosting 4-H Robotics

“Almost 600 youth have been served through kick-off event”

Encounter events. Almost 600 youth have been served through these kick-off events in 2015-2016 at



Indiana 4-H Robotics Programs
■ Current 4-H Robotics Programs
■ Developing 4-H Robotics Programs

ABOVE: A map of Indiana counties shows the current status of the growing 4-H Robotics Programs across Indiana. BELOW: Brylee Ramsey and Nev Cockerham are teamed together to assemble their Lego Mindstorms EV3 robot. Photo credit: Zach Spicer, The Tribune.



4-H Robotics Club member, Madissen, works on her own robotics project at a 4-H Robotics event.

11 different Encounters held statewide.

With expanding STEM experiences, Indiana 4-H is meeting a nationwide need for a greater interest in STEM fields and first generation 4-H families. In Crawford County at their end of the year awards event, the 4-H Extension Educator shared some of the successes of their 4-H Robotics Club. Fast forward a few weeks and the educator was called because a mother had just been to her son's parent-teacher conference. The science teacher recommended her son build something. The mom was able to recall the talk about Crawford County 4-H Robotics and wanted to know how her son could get involved. He attended the upcoming one day Robotics Encounter event and

2015 MATCHING GIFT CHALLENGE RESULTS

Because of your commitment to Indiana 4-H, our 2015 Matching Gift Challenge raised **\$97,729**. Special thanks to Farm Credit Mid-America for their gift of \$25,000 to grow Indiana 4-H! The invaluable skills and life lessons 4-H teaches will continue to positively impact communities statewide.



“Over 40 new volunteers are now supporting 4-H across Indiana”

is now a member of the 4-H Robotics Club.

These new opportunities are not only attracting new youth audiences but also first time adult volunteers. Over 40 new volunteers are now supporting 4-H across Indiana thanks to 4-H Robotics and increased STEM education and more will continue to engage as additional funding is sought and the Indiana 4-H Foundation, county Extension Educators, and the state 4-H Science Extension Specialist work to reach all 92 counties and improve, advance, and grow the Indiana 4-H Science program opportunities.



Lucas Jablonski, Xavier DuBois, and Bradley Dyer work together to program their first robot at a 4-H Robotics kick-off event in Jackson County. Photo credit: Zach Spicer, The Tribune.



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Benefit from FREE vehicle pick-up and a tax deductible sales receipt!

Learn more at www.1cardifference.com or call 1-877-557-ICAR & select Indiana 4-H Foundation!

TEENS AS TEACHERS

Equipping Indiana youth to teach biosecurity and biotechnology

117 youth members and 31 adults attended the Teens as Teachers Conference held at the Indiana State Fairgrounds in February. This 3 day, 2 night conference supported in part by the Indiana Soybean Alliance, brought together teams of 4-H members in grades 9-12 from 20 different counties and at least 6 participants were first year 4-H members.



This program empowers older 4-H members to spread knowledge and awareness of science concepts within 4-H projects to younger members, their peers, and communities. Those attending learn interactive ways to teach concepts such as genetic pairing, disease transmission, DNA, bioplastics, and water properties with everything from strawberries and M&M's to plastic bags and soybeans. The agenda includes opportunities to learn about different career opportunities in science as well as planning time for the teen teams to formulate goals for implementation and work with their adult mentor. Participants develop valuable life skills like



Using common household items teams of teens were taught hands-on science activities they could use to educate others at the Teens as Teachers Conference. Photo credit: Samm Johnson.



A group of 117 youth were trained to teach others about biosecurity and biotechnology in their home communities during the 4-H Teens as Teachers Conference.

teamwork, critical thinking, and goal planning all while increasing their STEM knowledge and interest. Thanks to the resources and instruction provided that address not only learning content but also how to educate those back home, 100% of the biotechnology participants either agree or strongly agree that as a result of participation in this program "I have a plan for reaching my goals" and "I can do an experiment to answer a question."

"91% say as a result of this experience they want to learn more about science"

The Teens as Teachers program has a lasting effect on those involved and sparks further interest in science related fields. Some alumni participants are pursuing science education as a career, Emily Barge, seen as our featured Teen Teacher, is one of those. As a result of their involvement in Teens as Teachers 78% of the 2016 participants said that they would like to have a job related to science and 91% say as a result of this experience they want to learn more about science.

Q&A with a 4-H Teen Teacher: EMILY BARGE

Emily Barge is a 10 year 4-H member from Steuben County and attended the Teens as Teachers Biotechnology Conference in 2014.

What does your involvement look like on a county or area level with the Teens as Teachers program?

I have done about 5 different programs each year. The programs range from being a one time program to a 10 week after school program. I have learned how to be a better teacher, get organized, and time management. I feel honored to be a teen teacher not only in my community, but also training others to be teen teachers. **I feel like I have made an impact and taught others that science is fun and not just in a textbook.**

How has it impacted you?

Being a teen teacher has influenced me to make my

passion for teaching into a career by going into Science Education. I would not have teaching experience without being a teen teacher.

Why is this program beneficial?

I think the Biotech Program is beneficial because it **takes hard science concepts and makes science fun and applicable to real life.** Being a teen teacher also teaches teens real life skills while still under the supervision and guidance of an adult or educator.

What would you say to those supporting the program?

I would say **"Thank you for supporting the Biotech Teen Teachers program. I have personally witnessed kids getting excited about science, and passionate about learning all from the Biotech Program. Without your support, kids would not be learning, discovering, and becoming passionate for science."**

Anything else you want others to know about the program?

I think that the biggest misconception about being a teen teacher is that you have to put tons of time and work into it. You will get out of it what you put into it, and no matter how often or long you do a program for, **you will make a difference and educate others.**



Emily Barge, Steuben County, plans to pursue Science Education as a career after being involved as a 4-H Teen Teacher.

SCHOLARSHIP JUDGING

Nearly 1,000 Indiana 4-H youth scholarship applications were submitted and reviewed

A few weeks ago if you walked into the right room in the Stewart Center at Purdue University you would have been met with 21 adults gathered in small groups, studying computer screens, armed with caffeine. This wasn't the usual college studying session though, it was the review committee for the 997 Indiana 4-H scholarships applications. Twenty Purdue Extension 4-H Youth Development Educators and one Indiana 4-H Foundation Board member spent two days on campus reviewing and ranking applications submitted for the four different scholarships offered: Senior Foundation, 4-H Club, Laurenz Greene Memorial Excellence in 4-H Horticulture, and Accomplishment.

You don't have to help out for long to see why they do it. Each application portrays the unique story of the youth that make up the Indiana 4-H program and what their involvement has meant to them. When one of the Area 5 Educators was asked why they enjoyed assisting with scholarship judging their answer reflected just that. *"Reading all of the impact that 4-H has had on these young people and all that they have been able to accomplish through 4-H really helps to put my job in perspective. [...] scholarships are just one of those things that act as a reality check and remind me the effect that 4-H can have in a young person's life."* Stories of early morning chores, hours spent over sewing projects, or practicing for their communications event are shared and accompanying each of those memories are the life skills they gained and how that's helping them as they go forward. For example, one applicant shared, *"The determination and work ethic I have developed through 4-H will make me a more productive member of society, to not only make my life better, but also the lives of others."*

At the conclusion of the judging, the 997 applications resulted in nearly 200 4-H members having been

granted \$89,350 in Senior Foundation Scholarships and 70 interviews scheduled for 4-H Accomplishment Scholarships which will decide the giving of an additional \$36,000. Purdue Division of Financial Aid and the Purdue Horticulture and Landscape Architecture Department are still deciding upon recipients as well. This means that more than 227 scholarships will be awarded for 2016, totaling over \$125,000.

4-H has a lasting impact on its participants and scholarships are one way that members can be supported beyond their youth years. When asked why scholarships were important and what impact they had on the youth members, one of the Area 8 Educators shared their desire to improve the pursuit of further education in their county. *"I am striving to offer members a picture of future success [...] and having a full independent living experience in the safety of the academic culture. Every experience members get gives them new opportunities for growth! Future success depends on growth."* Another Educator touched upon the impact scholarships have by addressing the importance of the process, not just the possible end reward. *"Scholarships can provide funding for youth to reach for their dreams; but even when youth aren't awarded scholarships they begin to understand the process in a safe environment. Interviews are a great way to get ready for college, but also apply to the 'real-world.' So many times youth are not given the opportunity to experience an interview before they are in need of a job so they are not adequately prepared. This is a way to help educate youth by demonstrating the process."*

2016 4-H scholarship recipients are recognized at the county level in a variety of ways. The Accomplishment Scholarship recipients are recognized, along with their donors at the Indiana 4-H Congress Scholarship Luncheon at the Indiana State Fairgrounds. This year the event will take place on October 1, 2016.

Save the Date: October 1, 2016
Indiana 4-H Congress
Scholarship Luncheon

EDUCATOR SPOTLIGHT: KATI SWEET

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The Indiana 4-H Foundation impacted Kati Sweet as 10 year 4-H member in Warren County. Now, as the Hendricks County 4-H Youth Development Educator she sees the impact of the Indiana 4-H Foundation from a new perspective.

How has the 4-H Foundation helped you to succeed?

I knew I loved 4-H and after [attending a 4-H Workshop at Purdue University in 8th grade], I knew I wanted to be a 4-H Youth Development Extension Educator. Many workshops and activities I participated in were, at least in part, funded by the Indiana 4-H Foundation. I received a scholarship from the Indiana 4-H Foundation that was sponsored by my local Jr. Leader group. This scholarship helped pay for part of my education at Ball State University. So, as a youth, the Indiana 4-H Foundation helped me succeed by helping put on events that influenced my career choice. It also helped me pay for part of my college education.

As an Extension Educator, the Indiana 4-H Foundation has helped me succeed in a different way compared to my youth. While as a youth the Foundation invested in programs that helped me grow, I now am able to utilize the 4-H Foundation and their connections to grow my own county's 4-H program. I am now able to send youth to workshops and events throughout the state that are funded with help from the Foundation. The same events that helped shape me as a youth are now bigger and better in order to shape the youth of the future.

How do you want to give back to the 4-H Foundation?

I am a 4-H nerd. I love all things 4-H! The easiest way I found to give back to the Foundation was to get a 4-H license plate! Not only do I get to show off my love of 4-H while driving, but a portion of the money I paid for the plate goes back to the Foundation, which in turn goes back into the Indiana 4-H Program.

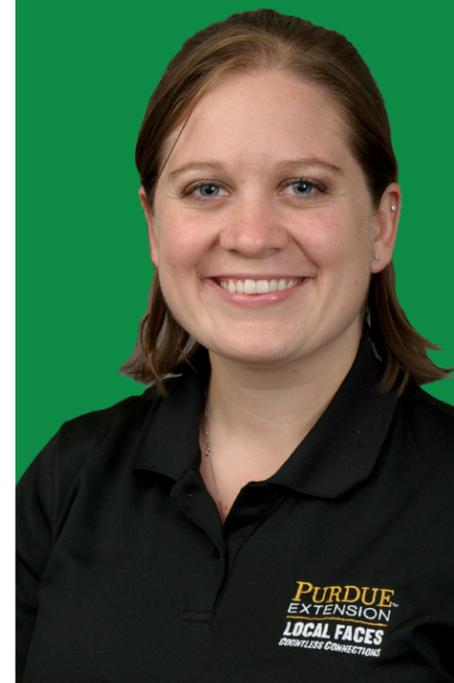
As an educator, another way I can give back to the Foundation is by having successful programs and encouraging youth to be engaged in 4-H. By having youth that attend 4-H events and activities, especially [those] that the Indiana 4-H Foundation sponsors, I am giving youth a chance to see a different side of 4-H to grow their knowledge and abilities. The 4-H Foundation contributes to the Indiana 4-H program which contributes to positively developing youth who will contribute to the future of our world. It's a great 4-H cycle to be in!



"The easiest way I found to give back to the Foundation was to get a 4-H license plate!"

Like Kati, you can show your support for Indiana 4-H by purchasing an Indiana 4-H Foundation Speciality License Plate!

Purchase or renew your specialty plate at your local BMV or at www.in.gov/bmv





www.in4h.org

Agricultural Administration
615 West State Street
West Lafayette, IN 47907

The Indiana 4-H Foundation provides resources that give the opportunity for all Indiana youth to develop life skills that benefit their communities.



Eli Lengacher, Johnson County 4-H, interacts with a new Lego Mindstorms EV3 robot purchased with grant funding from Duke Energy Johnson County 4-H, Interacts with a new Lego Mindstorms EV3 robot purchased with grant funding from Duke Energy Johnson County 4-H, Interacts with a new Lego Mindstorms EV3 robot purchased with grant funding from Duke Energy Johnson County 4-H, Photo credit: Amy May, The (Johnson County) Daily Journal.

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