We typically focus our Green Ink articles on the accomplishments of the youth in our programs. For this article, I would like to take a moment to say thank you to all of the staff that have dedicated their time to the continuation of 4-H youth programming during COVID-19 school closures – and to tell their story, as I believe it is quite remarkable!

On Friday, March 13th, we were notified that all schools would be closing for an indefinite period of time. The Jefferson County 4-H team, which encompasses the staff that support 4-H Afterschool, Traditional Clubs, Military Programs, and Camp Wabasso, all convened to discuss how to continue to support youth during such uncertain times. In actuality, discussions were taking place during the week leading up to closures. Despite a very stressful situation, there was no negativity – only positive thinking and outpouring of ideas. By the end of the day on Monday March 16th, the idea of the 4-H Virtual Academy was on its way to becoming a reality. Over the next ten days, the Jefferson County 4-H team completely reorganized itself, transitioned to working virtually, and launched the 4-H Virtual Academy. It was a time of long working hours, late night ideas and conversations and staff working straight through the weekend to solve problems and move their ideas from the abstract phase to a concrete plan. While the team is normally spread out working on a variety of projects across Jefferson County, this was a collective effort, one that was quite powerful to see. Over the course of these ten days, the staff shaped up a plan that best utilized resources in a way that would be impactful for youth. Questions were asked such as; How can we reach youth without virtual access? We were running a trout-in-the-classroom project at Indian River, what should we do with the fish? Some ideas were tossed out, others kept, and the team moved right along to make sure that everything fell into place. As a result, the academy launched with ten different programming options (one option did in fact include the trout), as well as an additional program that would mail skill building kits to youth to account for those without virtual capabilities.

On March 26th, the 4-H Virtual Academy launched – with the following options: Animal Science, Book Club, 3D Printing, Environmental Science, Coding, Chess, Nutrition/Mindfulness, Minecraft, DimensionU Education Gaming, Tabletop Character Building, and Own the Mic (Public Speaking). With all of these options you might say we were quite busy – and though that is true, more programs continued to be added, while others were developed and tweaked over time. The 4-H team learned a lot – which programs had appeal, which did not, how to properly use virtual technology (such as Zoom) to connect with youth. The 4-H staff, who are quite passionate about their work, continued to add programs to address different needs during the pandemic. Programs developed to distribute fabric and sewing patterns to make face coverings, afterschool sites developed social hours to allow youth to better interact, and family reading groups were developed to give parents a way to connect in a different way.

The 4-H Virtual Academy closed out the last session of school-year programming on June 26th, so that staff may take a break and prepare for a new round of innovative programming for the summer – Camp In a Box! The school closures due to COVID-19 were certainly quite a change to the way we do our work – but the 4-H team in Jefferson County adapted and overcame! The final participation numbers for the 4-H Virtual Academy include 336 youth, with many enrolled in multiple programs, for a total of 545 registrations. In addition to the virtual programming piece, 601 maker kits were sent out, to accommodate youth that could not access virtual programming. Along with this programming, several family events were offered, including

continued...
When school was suspended because of the COVID-19 pandemic, 4-H afterschool programs were also suspended. The staff at Cornell Cooperative Extension of Jefferson County who oversee the afterschool programs pulled all of the educators and resources to form the 4-H Virtual Academy in an effort to continue afterschool programming in a virtual way. One of the many clubs being offered was the Makerspace club.

The Makerspace Club is a hands on club which offered several different activities to youth – which would be mailed home along with instructions for the activities. This was a great way to offer programming to youth who did not have the capability to access virtual programming. Makerspace kits included puzzle making, sewing, build-your-own-flashlight kit, junk drawer robotics, and garden kits. All of these activities taught youth a different life skill. Puzzle making, involved reading and comprehension, attention to detail, problem solving, and creativity. Sewing focused on hand-eye coordination as well as pattern analysis. The build-your-own-flashlight kits provided instructions on basic electricity and circuits. Junk Drawer Robotics added the life skills of engineering, creativity, and independent thinking. Garden kits provided understanding of plant growth, soil pH, and photosynthesis.

The Makerspace Kits were designed, manufactured, assembled, and shipped by the educators from various afterschool programs to students who wanted to participate in these different activities. All of the basic supplies needed to completed the kit were sent with the kit, along with instruction sheets to guide youth through the lesson and activity. For youth that did have virtual access - video tutorials were produced by the staff and posted on YouTube, and in some cases Zoom classes were set up. For many of the educators, as well as the students, this was a great learning experience.

This process of hands on learning is going to continue through the summer with programs such as 4-H Wabasso Camp In a Box, 4-H Summer Reading Fun Program, and others. For more information on exciting summer programs through 4-H visit: [http://ccejefferson.org/4-h-youth/4-h-virtual-academy](http://ccejefferson.org/4-h-youth/4-h-virtual-academy).
One of the new virtual programs that was developed during the COVID-19 school closures was the 4-H Online Chess Club. The club closed out for the school year on 6/26, to take a brief break and prepare for a new summer session of online chess programming. The program had a productive and entertaining few months learning all about the game of chess, using the website chesskid.com as a platform where educators and youth could connect to learn and play chess. The group met via Zoom and started each session with a quick quiz, challenging youth participants with various facts about the game, its history, and chess strategies. In the lessons, youth would be presented with different set positions for the board, and the program challenged students to pick the best move. During club time, the group would work through these set positions, with students being encouraged to share their thoughts on each problem. What move would they make, and why? Over the course of the program, youth were challenged with a variety of scenarios as well
as lessons to improve their chess abilities.

It was exciting to watch as youth advanced through the basics and developed into excellent chess players over time! A grand tournament was held in May, and every child who participated received their very own chess set. In addition to this, medallions were awarded to students who completed certain levels of chess work, either in chess club or playing against another person. There were three different levels a student could attain and some even attained the gold level medallion! Chess is an outstanding teaching game as it helps children learn to think in a logical manner and look ahead to possible moves they could make, as well as learn to analyze their opponent’s moves. This can translate to logical thinking in other situations as the children go through life.

For those interested in learning more about CCE’s 4-H Chess Program, please visit:

https://pub.cce.cornell.edu/event_registration/main/events_landing.cfm?event=4HSummerChessAcademy-222

### 4-H Virtual Academy Teaches Youth 3-D Modeling for the Future!
By Kevin Chamberlin, 4-H Afterschool Coordinator

3-dimensional modeling is the creation of a 3-D object digitally using programs like CAD (Computer-aided Design). We often think of 3-D modeling in relation to 3-D printing, however, the process can include everything from creating CGI characters and environments for video games and movies, to modeling architecture and cities, and even the planning of surgeries and medical procedures. 3-D modeling can help break down and prepare static objects, or, when put through physics simulations, can aid in modeling a dynamic world. Due to the versatility and practicality of 3-D modeling, it can be found in nearly every profession!

Through 4-H Virtual Academy students had the unique opportunity to learn TinkerCAD, a simplified version of CAD. In learning how to replicate architecture, students learned about scaling and how to estimate proportions from a 2-D image to build a 3-D model.

5th grade student, Damon, did a phenomenal job creating this house in TinkerCAD! His attention to detail and proportions made for an exceptional house. To go the extra mile, Damon even utilized a brick texture in TinkerCAD to give the chimney stacks more realism. Nice work Damon!

Since Damon created such a detailed house, it wouldn’t print correctly as is. 3-D printers lay down layer by layer (often plastic) to build up a 3-D model. With the printer laying down filament in layers, any hanging area (such as the overhang of the roof) needs printed support underneath otherwise it will collapse or sag. To get around this, Damon used TinkerCAD to break his 3-D model into multiple pieces so that each piece could print without any open space underneath. He did a great job because all pieces printed perfectly!

*continued...*
Here is the finished project all put together! It is easy to think of 3-D printing as only creating toys and trinkets but the exercise in creating architecture, digitally coupled with the incentive of seeing it realized as a tangible object, demonstrated to students the limitless potential of 3-D modeling. If Damon could accomplish this in a week’s time, imagine what could be achieved over the course of a career!

Interested in 3-D modeling? Go to www.tinkercad.com and join! TinkerCAD is free to use and has many useful tutorials to get you started. Check it out and start tinkering! Cornell Cooperative Extension Jefferson County is committed to offering innovative 4-H programming to students for them to explore, learn and create. In an increasingly digital world, we strive to offer opportunities that allow students to see and experience a plethora of career opportunities. Keep an eye out at http://ccejefferson.org/4-h-youth for 4-H programming being offered over the summer, virtually and in afterschool!

---

### Final Minecraft Projects — 4-H Virtual Academy

By Brianna Lusher, 4-H Afterschool Coordinator

4-H Virtual Academy’s Minecraft program has recently come to a close. Students in the K-5 group rounded out their village, kingdom, and zoo. The 6-8 grade participants finished their last project, an underground secret bunker. Lastly, youth in grades 9-12 designed “wipe-out” courses for each other. All of the groups have improved over the course of the Virtual Academy, and it really shows in the complexity and completion of their projects.

The components added to the village included a store, a restaurant, and additional houses. The kingdom has added a massive castle, complete with a guard room and a ball room. The barn had a small fiasco in which some foxes got loose and ate many of the other animals enclosed, but the students were able to work together to corral the animals back into their compartments. The zoo was the most difficult project, as it requires searching for the animals as well as mining materials for the enclosures. The animals gathered included pandas, mushroom cows, and ocelots, to name a few.

The middle school aged group built an amusement park and a large, underground secret bunker. The amusement park had a roller coaster designed using Redstone, a circuitry component of the game, and other activities such as “bumper cars” and a giant trampoline. The secret bunker included items of luxury, like a swimming pool and individual bedrooms for each participant. However, the necessities were included too, such as a small secret farm and bathrooms.

continued...
The high school group had an interesting take on building “wipe-out” courses. Out of the two teams, one completed a course with components like jumping challenges and avoiding Redstone traps. However, one team took a more intellectual approach, and built a more maze-like structure that had to be solved using a math problem about frequencies and percentages.

The 4-H Minecraft Program will continue over the summer with grades 7-12. The spots available are very limited, as the program will operate on just one server for the summer. For more information visit: https://pub.cce.cornell.edu/event_registration/main/events_landing.cfm?event=Summer4HMCraft-222

How to Stay Connected in a Virtual World
By Katelyn LaRose, 4-H Afterschool Program Assistant Coordinator

Making connections with youth during a pandemic was not an easy task. In order to connect with youth, and allow them an opportunity to connect with each other, 4-H Educators began offering 4-H Social Hour events with the youth from their 4-H Afterschool Program sites.

Each week during the school closures, 4-H afterschool Programs reserved a time to connect with students at their specific site. During this time, staff had the opportunity to check in with youth and see how they were doing, they would also facilitate a virtual activity for the kids to participate in and inform students about any Virtual programming that was being offered through the 4-H Virtual Academy.

Students from our LaFargeville 4-H Afterschool Program joined their educators on a call each week, where an educator picked an activity to lead. Students and educators created unique crafts out of nature supplies, played numerous rounds of Bingo, spun the wheel for Wheel of Fortune, and even tried our hand at Jeopardy. What an excellent time we had! Not only were the kids highly involved, but so were the educators - making it all the more fun! This allowed students an opportunity to connect with their educators and their peers. For most students, it was the only way they could get together with their friends and classmates.

Even though the 4-H Social Hours were virtual, it become a highlight of our week as students truly enjoyed joining us. Parents reached out to express their level of gratitude and passed along messages like this one:

“I just wanted to say you guys have done such an awesome job reaching out to all the 4 H kids and have brought so many great ideas to the table. You are all really amazing. I just wanted you to know I noticed and appreciated it as a teacher and a parent. Hang in there. And thank you for being so awesome.”

August/September 2020 Green Ink
Contact us for more information at 315-788-8450 or jefferson@cornell.edu.
Visit our website at www.ccejefferson.org
Find us on Facebook at: Cornell Cooperative Extension of Jefferson County and Jefferson County, NY 4H