What is STEMCARE?

STEMCARE is a collaboration between Mylan and West Virginia University. The partnership will help develop and implement programming to instill a growth mindset in West Virginia's youths through personal application of problem-solving skills gained from science, technology, engineering and math (STEM). Students are provided with the skills necessary to grow their confidence and intellect helping them to become more curious, active, resilient and engaged (CARE).
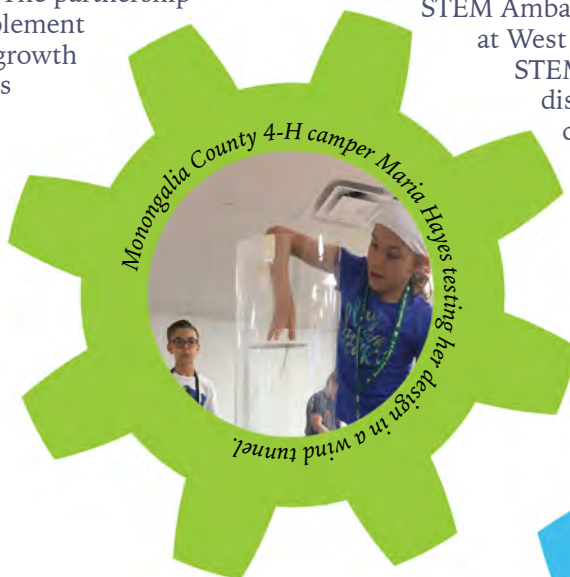
Mylan's Role

As a global pharmaceutical company whose mission has been focused on creating better health since its founding, Mylan provides opportunities for West Virginia's children to embrace a brighter tomorrow and make a difference in their home state. Mylan tackles local issues, like access to medicine for 7 billion people around the globe and believes that similar problem-solving skills can help students face challenges in school, at home or in their community. Mylan is the primary funder in their collaboration with WVU for the STEMCARE initiative.

Learn more about Mylan at *Mylan.com* and at *MylanBetterHealth.com.*

Monongalia County 4-H camper Maria Hayes testing her design in a wind tunnel.

4-H'ers and STEMCARE

STEM Ambassador Jillian Clemente led students at West Virginia 4-H camps through various STEMCARE activities this past summer. She discovered how creative young scientists can be while running "Sky's the Limit," an engineering design activity that challenges student's problem-solving skills and creativity during a week-long class.

Watch Ohio County 4-H'ers exploring STEMCARE growth mindset activities *mylan.com/en/news/feature-stories/4h-camp-video-2019*

Mylan employee Joe Duda works with kids as part of the "Sky's the Limit" at the State Fair of West Virginia

National Youth Science Day Challenge is a 'Game Changer'

In October 2019, 4-H launched the 2019 National Youth Science Day (NYSD) challenge, Game Changers. Designed by Google and West Virginia University Extension Service, Game Changers teaches kids ages 8-14 how to use computer science to create games, solve problems and engage with topics they're passionate about.

Game Changers uses physical activity and puzzles to teach kids important CS concepts and problem-solving skills. These scenarios create real-world connections between computer science and civic engagement, healthy living and agriculture. The challenge combines computer-based and unplugged activities that can be completed without internet access.

The National 4-H Council sold more kits than ever before in the NYSD challenge's 11-year history. More than 200,000 youths across the country participated in Game Changers' activities throughout October and November.

Funding from Mylan STEMCARE provided 500 kits to state teachers, librarians and afterschool providers, as well as all 55 WVU Extension Service offices. Based on survey information collected from kit recipients, an estimated 15,000 West Virginia youths participated in the Game Changers activities.
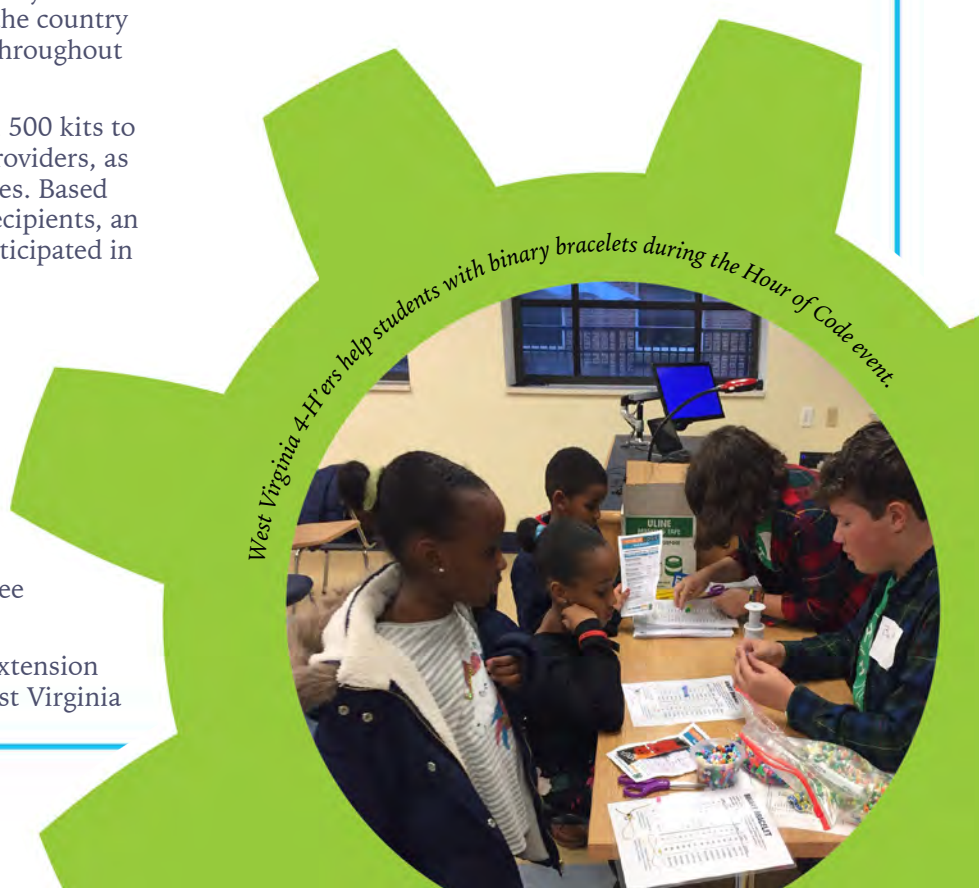
Hour of Code

The Hour of Code is a global initiative by Computer Science Education Week and *Code.org* to introduce millions of students to computer science and computer programming. On December 14, families and students in grades K-8 gathered on WVU's Downtown campus to enjoy this free event filled with a day of fun and learning.

Hour of Code was orchestrated by WVU Extension Service and entertained more than 100 West Virginia

youths. This year, Hour of Code partnered with several groups with teen members teach younger kids to code. Kids were able to play computer activities and learn how to design code and code characters from *Frozen* or *Star Wars*.

"We have a combination of plugged activities so that way they're actually using computers to design their own coding activities and unplugged activities where they're learning just computational thinking through fun things like making a binary code bracelet or playing a puzzle," said Jennifer Robertson-Honecker, associate professor, WVU Extension Service.

Children were able to code their dance, hack their harvest and more. Honecker hopes to make this an annual event where kids from the community can play and learn.

Wetzel County students participate in Game Changers activities.

West Virginia 4-H'ers help students with binary bracelets during the Hour of Code event.

Spotlight on STEMCARE: Meet Suzanne McDonald

STEM Education Specialist, West Virginia University Extension Service

As the STEM Education Specialist for WVU Extension Service, Suzanne McDonald provides science lessons and engineering design challenges to students and educators through 4-H activities, camps and events across West Virginia. McDonald discovered that students who engage in the engineering design process are building perseverance, teamwork and problem-solving skills. McDonald said, "Once kids understand that the engineering design process is all about improving a design over many trials, they are not afraid that they will fail. My favorite sound is, 'Please, just one more test-run?'" Most recently, students researched, designed and tested flying technologies, cardboard boats, sonic pollinators and robotic cardboard hands.

McDonald earned her bachelor's degree in botany from Louisiana State University, a master's degree in horticulture from University of Kentucky and a master's degree in secondary education from West Virginia University. Before joining WVU Extension Service, McDonald taught high school biology, anatomy, forensics and environmental science courses in Monongalia County Schools. In her spare time, she enjoys exploring the many beautiful West Virginia State parks.

STEMCARE Future Event Spotlight: Code Camp

PURPOSE: Smartphone apps, robots, video games, movies – the world runs on code. Software jobs are predicted to grow 34% percent in the next few years, making coding and app development the world's most in-demand skills. During 4-H Code Camp, campers will work on fun hands-on projects while learning about computer science topics such as drones, cyber security and computer animation. Classes are for new coders with no experience, as well as intermediate and advanced coders. Watch a video from last year's camp here — *www.youtube.com/watch?v=zzUnkDSxNks*

WHO: West Virginia youths currently in gradesM6-12 (ages 11-17) at the time of the event. Space is limited.

WHEN: February 21-23, 2020

WHERE: WVU Jackson's Mill

CLASS DESCRIPTIONS: Students choose two courses, one coding class for the morning and one physical computing class for the afternoon. Each class description lists required skills/background. New coders with little or no computer science experience, should not sign up for classes listed as intermediate or advanced. Each class is a limited to 12 participants.

Suzanne McDonald leads students through Game Changers' activities at NASA's Day in the Park.

Upcoming STEM Camps

May

ECI/STEM Ambassador Training
May 17-21, 2020
WVU Jackson's Mill, Weston, W.Va.

June

Older Member Conference
June 14-20, 2020
WVU Jackson's Mill, Weston, W.Va.

July

Alpha I State 4-H Camp
July 5-10, 2020
WVU Jackson's Mill, Weston, W.Va.

Alpha II State 4-H Camp
July 12-17, 2020
WVU Jackson's Mill, Weston, W.Va.

STEM/Agri-STEM Camp
July 26-31, 2020
WVU Campus, Morgantown, W.Va.

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