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**Newest 4-H projects focus on ag mechanics, architecture**

State official says projects prep youth for educational opportunities, careers

MANHATTAN, Kan. – The Kansas 4-H program has added a pair of projects that organizers say will help prepare youth for careers and educational options in science, technology, engineering and math, commonly known as **STEM**.

And, oh by the way, one approach? Playing with Lego blocks.

“With all of our projects, we strive to make a connection to how what youth are doing is relevant to a potential career,” said Shane Potter, a Kansas 4-H youth development specialist. “And, how can we set youth up for success while exploring educational options.”

The state’s 4-H program has nearly three dozen projects available to youth. Potter said the two newest options – agricultural mechanics and architectural block construction – were tested last year and are now part of the regular offerings.

“These two projects,” he said, “help us to further explore the areas of ag mechanics and architecture that we knew were important but we may not have been addressing to the full extent that we could be.”

The [architectural block construction project](https://www.ksre.ksstate.edu/news/stories/2022/01/4h-ag-mechanics-architecture.html) is a lot like what it sounds: it takes advantage of the popular building blocks made by the Lego company. Youth are encouraged to construct dioramas and explore architecture in a three dimensional space, according to Potter.

As in all 4-H projects, the young architects are encouraged to progress in their understanding of design elements, beginning with a diorama that includes two features beyond floors, ceilings and walls, and eventually progressing to “Master” (10 years or more experience) where they can build a diorama with up to eight architectural features and three or more motion elements.

Potter said the architecture project is unique to Kansas 4-H and was developed as a result of “hard working 4-H volunteers who are part of the 4-H STEM action team,” he said.
Agricultural mechanics focuses on welding and metalsmithing, encouraging youth to not only learn the skills, but view them as the foundation of their own business.

“They work with adults and try things out in a safe way, and we provide the curriculum and resources to learn the correct way so they are prepared when they move on to the next steps,” Potter said.

He added that the Kansas 4-H program initially started with the area of welding but hopes to expand into other areas like precision agriculture and leverage university and industry partners as experts.

“We offered this opportunity for the first time at last year’s Kansas State Fair,” Potter said. “We had a lot of interest, and we had some amazing projects that were created, even in the first year. Youth demonstrated a plethora of skills around welding, not only around what they learned, but also how they can apply that to a business of their own or into the many areas where people need welders.”

Potter said as youth advance in the agricultural mechanics project, “we hope to create opportunities to develop and demonstrate more complex uses of their skills, such as in a precision agriculture application. We’re always trying to make our projects better, and expand them through a connection with a career.”

More information about opportunities available to youth through Kansas 4-H is available online, or at local extension offices in Kansas.

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FOR PRINT PUBLICATIONS: Links used in this story

Kansas 4-H Projects, https://www.kansas4-h.org/projects


Kansas 4-H Youth Development, www.kansas4-h.org

K-State Research and Extension statewide offices, https://www.ksre.k-state.edu/about/statewide-locations.html

K-State Research and Extension is a short name for the Kansas State University Agricultural Experiment Station and Cooperative Extension Service, a program designed to generate and distribute useful knowledge for the well-being of Kansans. Supported by county, state, federal and private funds, the program has county extension offices, experiment fields, area extension offices and regional research centers statewide. Its headquarters is on the K-State campus in Manhattan. For more information, visit www.ksre.ksu.edu