

# MAKING A DIFFERENCE



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- Water and Natural Resources
- Health
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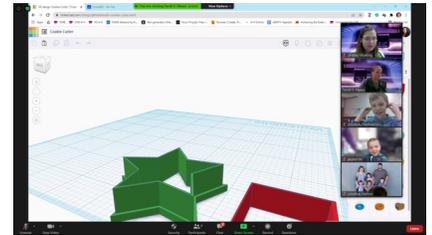


**K-STATE**  
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Central Kansas District

## Grand Challenge: Developing Tomorrow's Leaders

**Title:** Virtual 3-D Printing Day Camp

**Why is this issue important?** As communities seek to improve the opportunities for young people to develop life skills, reduce risk factors, and build assets, they are turning to quality programs designed to extend in-school learning to out-of-school opportunities for youth, and resources for adults who support children and youth. These programs take place both in schools and in the community. They provide children and youth with an opportunity to develop skills and interests in a wide range of domains by offering high interest activities designed to extend the learning day for participants and provide opportunities to apply in-school learning to real life situations.



As the premier Positive Youth Development organization in the state, Kansas 4-H is uniquely positioned to build the skills and behaviors needed to succeed in the 21st century workplace and post-secondary education systems. Kansas 4-H is committed to building outstanding leaders with marketable skills to succeed in today's global society and workplace. 4-H empowers youth to reach their full potential, working and learning in partnership with caring adults.

**How did Extension address this issue?** Between the surges of the Delta and Omicron COVID-19 variants, planning occurred for the Virtual 3-D Printing Day Camp to be held during spring break of 2022 for youth ages 10–13 in the Central Kansas District and McPherson County. The purpose of this virtual day camp was to provide a safe environment for youth to learn more about 3-D printing, problem-solve, and create several 3-D items, of which two would be printed. Two identical camps with two sessions each were held with an optional help session at the conclusion of the week.

**What was the impact?** As a result of participating in the Virtual 3-D Printing Day Camp, 11 youth:

- Gained a better understanding of what 3-D printing is and how it works;
- Were engaged in the basics of using TinkerCad, a web-based app, to design a key chain, a story cube, a cookie cutter, and an animal bot;
- Had an introduction to scaling, slicing, and preparing their projects for printing;
- Made connections with youth from central Kansas and shared ideas for their 3-D printing projects;
- 17 items were printed for the participants with the key chain and story cube being the most popular items and glow-in-the-dark filament the favorite color; and
- Learned how 3-D printing is being used in real life situations for prosthetics, in space, and so many other avenues.



**Success Story:** This email was received from a parent following the Virtual Day Camp—

*Thank you for having this camp! (4-H Member's Name) has been playing with the program and talking about it. He mentioned the camp as something he was looking forward to both in school and therapy 😊. I think he liked it – I even caught him smiling.*

*He has been doodling ideas and playing with the software 😊.  
I appreciate that it was offered to sign him up for. Again, thank you!*