2021-2022 STEM Projects

4-H Member projects (6th Grade-12th Grade)

Teachers and adult family members are welcome to participate to become certified 4-H volunteers

To register and for more info scan the barcode on each project

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**Robotics**

The Robotics project introduces youth and adults to engineering and computer programming to design, build, and program small-scale Lego robots. Youth and adults collaborate in small teams and engage in learning to code a LEGO EV3 MINDSTORMS robot and develop engineering, technology and problem-solving skills. Teams compete in a state-wide competition.

**DATE**

Jan 3 - Mar 25, 2022

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**Underwater Robotics Remotely Operated Vehicles (ROVs)**

The Underwater Robotics project introduces youth and adults to an innovative ROV program that engages learners in the engineering design process focused on real-world challenges. Youth and adults collaborate in small teams and engage in circuitry, soldering, and how to build an ROV. Teams compete in a Marine Advanced Technology Education (MATE) regional competition.

**DATE**

Feb 14 - May 7, 2022

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**Augmented Reality (AR)/ Virtual Reality (VR) Floating Farm**

The AR/VR Floating Farm project introduces youth and adults to augmented reality (AR) and virtual reality (VR) by creating a virtual Floating Farm. Youth and adults collaborate in small teams and engage in designing and creating their own farms in AR and VR to present their work at a student showcase to family and friends.

**DATE**

Jan 3 - Mar 25, 2022

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**Greenhouse Sustainable Energy Engineering Design (SEED) Camp**

The Greenhouse SEED project introduces youth and adults to building their model scale greenhouse that engages learners in the engineering design process, applied math, scale perspectives, and the concepts of sustainable energy such as solar and wind. Youth and adults collaborate in small teams and engage in circuitry, soldering, and model construction.

**DATE**

Aug 2 - Oct 15, 2022
This year's Ag Innovator's Experience will have a challenge that youth leaders will be trained on and share with the community through activities and presentations. Last year's theme was "Curbing Our Carbon Appetite".

**DATE**  
Feb 1 - May 25, 2022

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4-H STEM Challenge 2021: Galactic Quest

This year's 4-H STEM Challenge "Galactic Quest", kids engage in the following activities: Astro Adventure, Stellar Optics, Cosmic Claw, and Cyber Satellite. Open to teachers, youth and community clubs.

**DATE**  
Oct 1, 2021 - May 25, 2022

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STEM Ambassadors

Become a County-level STEM ambassador and share your STEM skills and enthusiasm with others. 4-H STEM Ambassadors will learn new STEM engagement activities and become a catalyst of knowledge to their community. Each ambassador will receive a toolkit of materials for promoting STEM programs in 4-H.

**DATE**  
Jan 14 - June 15, 2022

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Tech Changemakers

National 4-H Console addresses the digital gap with the tech change makers program, empowering teens to lead digital skills training for adults in their community. The tech change maker program empowers teens and adults to take control of digital literacy and economic prosperity in their communities.

**DATE**  
Aug 1, 2021 - Mar 20, 2022
Contact your local 4-H agent if you are interested in participating in any of these projects!

**COUNTIES**

**Apache County**
- Mike Hauser
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**FEDERALLY RECOGNIZED TRIBAL EXTENSION PROGRAMS (FRTEP)**

**Gila River**
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**San Carlos Apache Tribe**

Visit us at https://extension.arizona.edu/4-h-stem