



Exhibits for High School Youth:

- Abbott Labs – See how a pacemaker regulates the rhythm of the heart and learn how a heart responds when a pacemaker is activated.
- ACESA – Take the electricity challenge.
- ACTIVATE LLC. – Watch a demonstration about stop motion animation.
- All of Us Research Program – Learn about this historic effort to gather data from one million or more people living in the United States to accelerate research and improve health.
- American Industrial Hygiene Association, Arizona Legal Section – Find out how noise is measured and whether noise muffling devices like ear plugs and earmuffs actually work.
- American Society for Microbiology – Explore bacterial fungal colonies while learning about microbes, make art with agar and discover the amazing world of microbiologists.
- Arizona Public Service (APS) – Power a lightbulb with your own muscle power.
- Arizona Museum of Natural History – Investigate fossils and prehistoric creatures.
- Arizona Science Center – Learn how gears and pulleys work, navigate an electric car, find out how you can build your own video game with a Bloxel board.
- Arizona State University Graduate Association of Interdisciplinary Neuroscience Students – View neurons of preserved brain slices using a microscope, make your own neurons, play the Vision Goggle Game and see sheep, rodent and human brain samples.
- Arizona Sustainability Alliance – Check out their Food Computer, part of the Food Tech for the Future project. The Food Computer is a digital greenhouse, demonstrating how food grows depending on the environment.
- City of Phoenix Water Services Department – Discover how Phoenix conserves water and investigate the water cycle.
- ***Cox Communications** – Experience VR in the Cox Gig Zone.
- CREST at Paradise Valley High School – Learn about engineering, computer science and bioscience with Paradise Valley High School students.



- Dignity Kids, Inc. – Break boards martial arts-style while learning about Newton's Second Law of Motion.
- Double J Riding Club – Learn all about horses — how they are groomed, maintained, ridden and fed.
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- DPR • Sundt – Construct your own structure using LEGOs.
- Education Empowers Inc. and Intel Corporation – Power a computer keyboard using banana energy.
- Embry-Riddle Aeronautical University – STEM Outreach.
- Engineering for Kids, Phoenix Metro – Learn about virtual reality.
- Eyeontek – SUNI the Robot – Interact with SUNI, the talking robot.
- First Tech Challenge – Learn about robotics.
- Flood Control District of Maricopa County – How does flooding affect your neighborhood? Find out with an interactive flood simulator.
- GEM Environmental – Build your own landscape, then see how water interacts with the land you have developed. Make your own dam and test how much water pressure it can withstand.
- Graduate Women in Science Arizona Chapter – Using detergent and rubbing alcohol, extract DNA from a strawberry.
- Grand Canyon University K-12 Development – Design your own electronics using snap circuits and spheros.
- Hope Animal-Assisted Crisis Response – Meet specially trained dogs who provide comfort and encouragement to individuals affected by a crisis or disaster.
- Innovant Technologies, LLC. – Solve computer programming problems by interacting with Somi, a 14-inch computer science doll.



- Intuitive – da Vinci Surgical System – Practice your skills as a surgeon with the daVinci Surgical Robot, the same one used by physicians.
- Maricopa County Air Quality Department – Explore how the county measures air pollution by working with portable air sensors.
- Maricopa County Cooperative Extension – Find out how native desert plants are used in products that you use every day.
- Mountain Ridge High School HOSA/Biomedical Sciences – See how doctors perform laparoscopic surgery.
- National Network of Libraries, Pacific Southwest Regio, UCLA – Find out about the cool science kits you can check out from your local library. Participate in a real citizen science activity called Stallcatchers, a research video game that looks for 'stalls' in blood flow in mouse brain vessels.
- Northern Arizona University (NAU) Physical Therapy – Learn what it takes to be a physical therapist.
- NAU Student Occupational Therapy Association – How strong are you? Measure your grip and pinch strength with a dynamometer. Complete a marshmallow tower.
- Phoenix Children's Hospital – Discover the innovative ways children with heart defects are being treated. Learn how pacemakers and defibrillators improve how a heart pumps blood. See 3D prints of congenitally malformed hearts before and after surgery.
- Phoenix Children's Hospital Advanced Practice Providers – APPs will provide education about their profession and have a mini-quiz.
- Phoenix Herpetological Sanctuary – Pet live reptiles and find out which ones make good pets.
- STEM Sports – Using a basketball and a bucket of ice, learn how different temperatures change the properties of objects.
- Tonto Creek Camp – Play STEM Minecraft at the Mobile Discovery Lab.
- ***University of Arizona** (UArizona) Cancer Center – Walk through an enormous inflatable colon and find out how to keep your colon healthy.



- UA College of Medicine – Phoenix Office of Diversity and Inclusion – Build a visual representation of your own DNA.
- UArizona College of Pharmacy – Have fun while learning how catalysts in the body work. Create colorful foam and lots of tiny bubbles. Make a "lung" using a straw and sandwich bag. Compound your own hand sanitizer. Listen to your heartbeat. Create a bracelet that changes color when exposed to the sun.
- UArizona Department of Planetary Sciences – Discover the wonders of space with UA's OSIRIS-REx Mission to Mars.
- UArizona Early Academic Outreach – MESA (Mathematics, Engineering, Science Achievement).
- UArizona Eller College of Management – Find out about careers in cybersecurity and spin the wheel for a STEM-related prize.
- UArizona Field Crops Insect Pest Management – Inspect insect specimens with a microscope, build your own insect activity and observe a honeybee display case.
- UArizona Flandrau Science Center and Planetarium – Solve math puzzles and play a Saturn bean-bag toss game.
- UArizona Health Sciences Library – Take the Health Literacy quiz and see the anatomical models that medical students use to learn about anatomy.
- UArizona Lowell Institute of Mineral Resources – Learn to refine copper ore into copper metal by extracting copper metal from copper ore by crushing ore, dissolving it in vinegar and electroplating it out of the solution.
- UArizona MCCE-4H – Launch your own paper rocket and discover how beans grow from seeds.
- UArizona Mel and Enid Zuckerman College of Public Health Student Alliance Phoenix – Make your own healthy trail mix.
- UArizona Office of Undergraduate Admissions and Early Academic Outreach – How much do you know about the University of Arizona? Play UA trivia!



- UArizona Police Department – Learn how UA's Police Department keeps the Tucson campus safe with a UAPD motorcycle, patrol vehicle and K-9 vehicle.
- UArizona School of Information – Battle a robot sorter using Skittles and learn about creative coding,
- University of North Dakota Aerospace – Build and test an airplane in a six-foot wind tunnel, then test your flying skills on a flight simulator.
- U.S. Army Medical Recruiting – Enter a U.S. Army surgical tent and find out how soldiers in the battlefield receive medical care.
- Vertical Flight Society – Their STEM toolkit includes twirly helicopters, rubber band helicopters, a gyroscopic chair and an Apache helicopter table-top simulator. They will also discuss engineering, slight and drone building.
- West-MEC – Visit a forensic photo booth to help solve a crime.
- Woz Ed – Explore mobile development, augmented reality, digital animation and robotics.
- Young CEO – Test your recycling knowledge and win a prize.
- Zovio – Learn about online safety though a MadLibs activity.