Exhibits for Middle 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.

- 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 light bulb with your own muscle power.

- Arizona Diamondbacks – Learn about Chase Field's new STEM Dugout and discover the physics involved in America's favorite pastime.

- Arizona Ghostbusters, Inc. – Make slime with an Arizona Ghostbuster while touring the “Ecto One.”

- 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.

- ASU Preparatory Academy – Interact with the high school robotics team and navigate their robots through an obstacle course.

- City of Phoenix CodePHX – Learn about 3D printing.

- City of Phoenix Mobile Recreation – Find out what kind of activities are available for teens in the Mobile Recreation Van.
• City of Phoenix Public Works – Take the waste sorting quiz and test your knowledge about what can go into the recycle bin.

• 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.

• Dino Crew, LLC. – Interact with life-size animatronic dinosaurs.

• DPR • Sundt – Construct your own structure using LEGO.

• 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 da Vinci 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 Region, 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.

• National Weather Service Phoenix – Witness a flash flood model simulate water flowing through a desert landscape and how water overflow can affect road conditions. In addition, a small tornado machine will create mist and spin into a vortex.

• Northern Arizona University (NAU) Go Baby Go – See a demonstration of a child's switch-adapted car meant for kids with disabilities. Test out the adapted toys yourself.

• 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.

• Pardes Jewish Day School – Code Bee-Bots, a robot for young children, through a maze and take a hands-on building challenge.
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.

Pink Jeep Tours – Climb all over a custom pink Jeep Wrangler and identify Arizona flora and fauna.

Play-Well TEKnologies – Armor your LEGO battle track and see if you can be victorious in a sumo-like matchup.

Radiall USA, Inc.

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 Architecture, Planning and Landscape Architecture – Design and build the playground of your dreams.

UA College of Medicine – Phoenix Office of Diversity and Inclusion – Build a visual representation of your own DNA.

UA 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.

UA College of Cooperative Extension – Agricultural STEM Education, Blender Bike and Project WET.
- 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 East Valley Cats Alumni – Build a sun dial and draw a scale solar system.

- 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.