

# Young entrepreneurs solve real-world problems at Invention Convention

## ASU supports teachers, K–12 learners in statewide entrepreneurship competition

By Mary Beth Faller, ASU News  
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Like all the young people participating in Invention Convention Arizona, fifth grader Margaret Brown wanted to solve a real-life problem. For her, it's lonely cats.

Margaret, a student at Ward Traditional Academy in Tempe, worked with some classmates to create Cat Company Cat Toys, to keep cats occupied when they're home alone.

"I personally thought it was a good idea because one time when I was camping, we came home and the cats had turned on the water, which shows that the cats can get into things while you're gone," she said.

Margaret was among more than 263 student entrepreneurs who participated in the 2026 [Invention Convention Arizona](#) competition Saturday on Arizona State University's Tempe campus.

This school year, more than 5,700 K–12 learners from around Arizona participated in Invention Convention, which is supported by the [J. Orin Edson Entrepreneurship + Innovation Institute](#) at ASU. There were five regional competitions leading up to Saturday's event, and the winners are eligible to present at the national convention in June.

Invention Convention teaches the entrepreneurship process — discovering a problem, brainstorming, researching, testing a prototype, revising it and marketing it.

Margaret's two cats helped with testing the toys.

"I know that they'd like this because when I was putting it down, immediately the cats tried to play with it, so we had to move them out of the room so they didn't destroy it before we got here," she said.

The Henry Ford Museum of American Innovation provides the free curriculum to teach entrepreneurship, and students participate during the school day, in after-school clubs, through youth groups such as Scouting or as independent learners with their parents.

The Edson Institute supports teachers around the state with training and in-service days, according to [Jeanine Ryan-Frandsen](#), program manager for youth entrepreneurship at the institute.

The goal of the program is experiential learning to teach innovation and creativity and to show the young people how ASU can support their entrepreneurial journey.

“It’s very much in alignment with what they will experience with [Demo Days](#) (a biannual pitch competition for college students), knowing that they can create something, keep enhancing their invention and maybe it turns into their business, and then they get mentorship through the rest of our institute,” she said.

“This is about the thinking and iterating process, so one idea might have been creative but they realized through testing that it won’t work, so they redesign and redesign — the whole STEM design thinking process.

“As the kids get older, it becomes more advanced with more iteration, more research. ‘Is there already a patent for this?’ If there is, how can they adapt their idea?”

Many of the young inventors were inspired by animals.

Matt Pulido, who attends Madison Meadows Middle Schools in Phoenix, won the seventh grade competition with the Animal Waste Picker Upper.

“I noticed that in my neighborhood there were a lot of stray pets, and they would always sneak into our yard and would usually leave a big mess,” he said.

In his research, he discovered that picking up waste with plastic bags can expose people to salmonella and E. coli. His device has a scooper, a scrubber, a bottle of alcohol and a bottle of cleaner all attached.

“It’s pretty much just an invention that has a bunch of mini inventions in it,” he said.

Cecily Hart, a fifth grader at Broadmor Elementary School in Tempe, won her division with Pet Perfection, a rolling bed for pets with mobility issues.

“It’s basically a pet wheelchair,” she said.

“You can push it like a stroller. And we have silk side cushions because silk is very good for animals and can help them with their sores and aches,” she said.

**The level of some of these prototypes is just out of this world, and the creativity is just flowing through everything. I think it's really cool to see the new generation and what they want to improve in their world.**

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**Charlotte Moenich**

ASU engineering junior and one of the judges at Saturday's competition

Research is key. Second grader Caden Maxfield and his classmates at Fuller Elementary School in Tempe kept losing toys under the fridge. So they collaborated on the Fridge Bumper, which attaches to the front of the refrigerator magnetically to block the gap at the bottom.

They had their families pull out their refrigerators to see what was underneath and realized it was not only toys.

"There was dust, mold, fur, cereal spills, sticky juice and a hanger," Caden said.

For high schoolers, research is more involved. Vyshal Sreenivas and Iraj Shroff met with two lawyers and a pain management specialist while developing their Smart Medicine Dispensing System, which won the 11th grade division.

Friends since childhood, Sreenivas attends Hamilton High School and Shroff goes to BASIS Chandler. After a friend of theirs nearly overdosed on opioid medication and a family member kept forgetting to take their pills, they got the idea to create their invention — a locked dispenser that notifies users when it's time to take a pill.

They estimate their dispenser will sell for about \$50 with a \$5-a-month app subscription.

"Most of the machines in the market right now are at a thousand dollars or more, and they're typically bulky," Sreenivas said.

"Not only does our product save lives from medication non-adherence, it also reduces the \$100 billion cost associated with hospitalization due to patients struggling with medication adherence."

An important part of the competition is the feedback from judges. One of the judges on Saturday, Charlotte Moenich, is a junior at ASU. An engineering science (business) major, she enjoys outreach activities with K–12 learners.

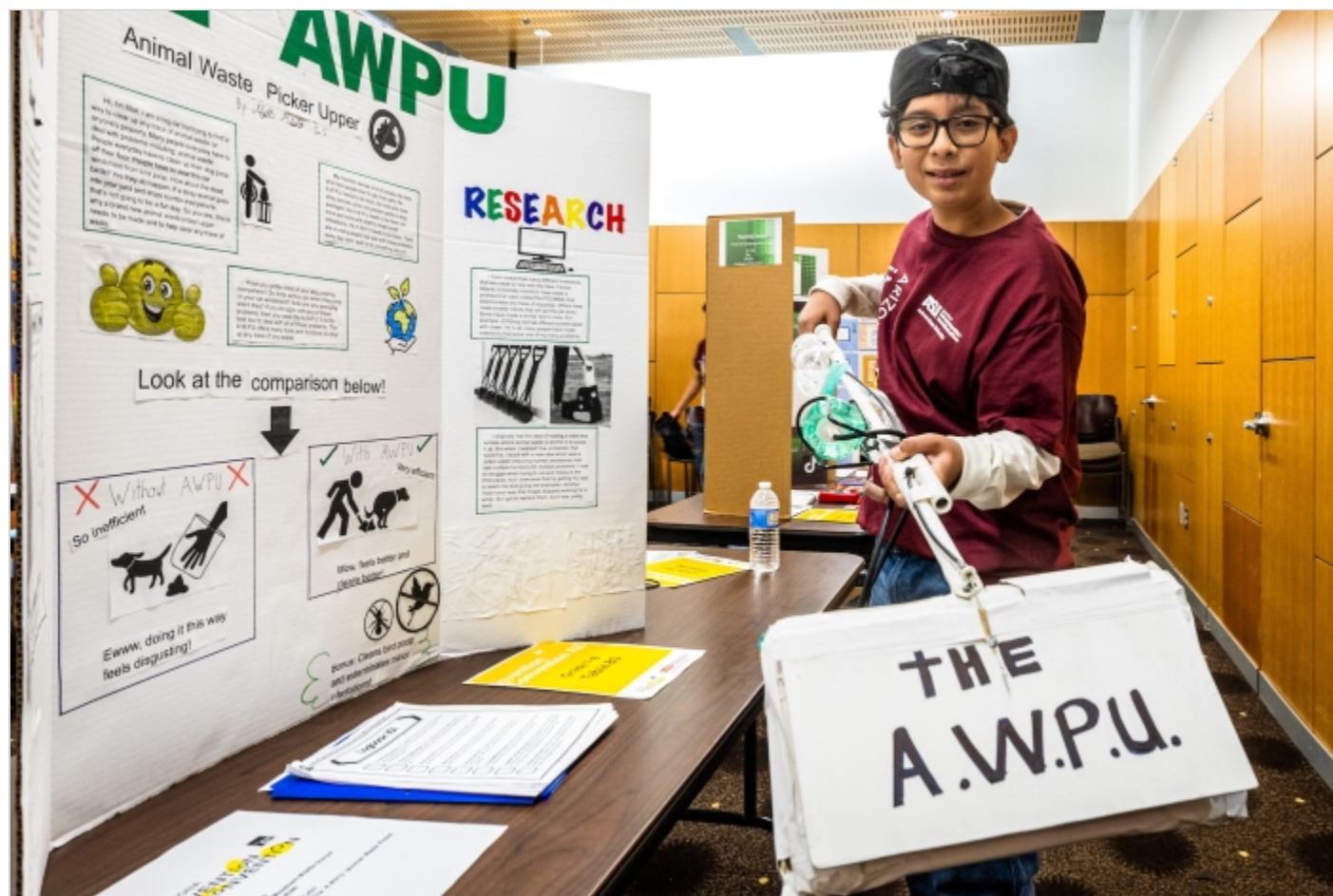
"The level of some of these prototypes is just out of this world, and the creativity is just flowing through everything," she said.

"I think it's really cool to see the new generation and what they want to improve in their world."

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*This story originally appeared on [ASU News](#).*

## Main image



Madison Meadows Middle School seventh grader Matt Pulido shows his invention, the Animal Waste Picker Upper, at the Invention Convention Arizona competition for K–12 students on Saturday at the Memorial Union on the Tempe campus. Matt won the seventh grade division. Photo by Charlie Leight/ASU News

## Gallery





Fifth grader Margaret Brown, who attends Ward Traditional Academy in Tempe, shows her Cat Company Cat Toys, which she invented to occupy cats when they are home alone.



Mohave Valley Junior High sixth graders Sophia Pineda (left) and Ava Davis present their Planet Pal, a robotic trash collector, to judges at the Invention Convention Arizona competition on Saturday. Their invention won an honorable mention.





BASIS Peoria 10th grader Ayushi Gon talks about her team's invention, Permafrost/Brain Freeze, an all-in-one neuro-gaming and learning system, at the Invention Convention Arizona competition. The invention won the 10th grade division.



Caleb Maxfield, a second grader at Fuller Elementary School in Tempe, talks about the Fridge Bumper, which his team invented to keep toys and debris from collecting under refrigerators.