https://www.loudounnow.com/news/heritage-students-win-state-international-awards-in-plant-the-moon-challenge/article_0687ff2c-0e0b-11ef-af74-eb29cc03386f.html

Heritage Students Win State, International Awards in Plant the Moon Challenge

Alexis Gustin
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Heritage High Schools Purslane Gang, from top left; Jasmine McBorrough, Camila Quino, Avery Lefman, Melana Shiring, Ethan Agustin-Calloway, Elijah Woods. Bottom left; Joshua Gonzalez, Willa Tansey, Reeva Khan, and Joe Nyilasi. The team won Best in Show for overall experimental design for the state of Virginia and the International title for best experimental design for the 2023-2024 international Plant the Moon Challenge.

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Purslane Gang, a team of nine Heritage High School students participating in the 2023-2024 international Plant the Moon Challenge won Best in Show for overall experimental design for the state of Virginia and the International Title for best experimental design.

The students learned they won the international award during a livestreamed announcement May 8. They learned they were state winners the day before from Virginia Space Grant Consortium Director Emeritus Mary Sandy and other members of the Consortium via Zoom while they were in biology class.

Sandy congratulated the three teams in attendance and said Purslane Gang was

The experimental design is how the team chose to set up their experiment.

The team consisting of Ethan Agustin-Calloway, Joshua Gonzalez, Reeva Khan, Avery Lefman, Jasmine McBorrough, Joe Nyilasi, Camila Quino, Melana Shiring, Willa Tansey and Elijah Woods were one of seven Heritage teams competing the challenge this year under the direction of biology teacher Amy Goodyear.

Purslane Gang learned they were state winners in the international Plant the Moon Challenge May 7 via Zoom.

Contributed Amy Goodyear

“You are part of an elite group here at Heritage,” Goodyear said after the May 7 announcement. This is the third year in a row Loudoun students have won under Goodyear.

Principal Jeff Adam bought the class pizza to celebrate the win.

The team expressed shock at winning because they said their experiment didn’t go as planned.

“I am so surprised because things went so wrong,” Lefman said. “Our plants were dying, our water system wasn’t good. I think we had a good plan but things didn’t work out how we thought it would, so it is surprising to win.”

The team chose to use purslane, an annual plant with succulent leaves rich in nutrients. It was based on Khan’s research paper.

“Basically, while I was doing my research paper, it was actually pretty last minute and I’m pretty sure I was almost late on it,” Khan said. “I kept searching and Googling what plant to do that could be edible. I didn’t want to do radishes because everyone was talking about radishes, and I wanted to do something different.”

“Reeva’s plan was really, really great it was a really durable plant that was able to withstand a lot of temperatures and it was just a really great plan to settle on for our first experiment,” Agustin-Calloway said.

The team’s experiment consisted of 20 pots in various mixtures of regolith and soil. They followed Khan’s plan and used a drip irrigation system. By mid-March all the plants had died.

“I really think it was the water,” Quino said. “During the start they had sprouted and then the watering got messed up and they died. Everything died. We tried several times to fix it but didn’t work.”

She thinks the drip irrigation wasn’t consistently watering the plants and recommends students next year water manually.

Fellow Heritage challenge participant, Anna Britt from team Tuscan Raiders said she was happy to hear a Heritage team won at the state level.”

“We probably all would like to win something at the state level, I’m just happy that someone from our school ended up winning and keeping that winning streak up,” she said.

The eight-week challenge in conjunction with NASA gives students around the globe the opportunity to take lunar regolith—moon dirt without the organisms that sustain life—and grow vegetables in combinations of soil, additives like different types of fertilizer and regolith. The teams planted the first week of February and harvested their plants March 18-22.

The students competed against 1,000 students from all over the world.

Heritage High School had over 60 students participate in the challenge this year.

“I am so proud of all my students who participated,” Goodyear said via email after the team was announced as international winners. “They have all grown in their scientific ability and working together as a team to problem-solve challenges as they arise.”

Heritage High Schools Purslane Gang with biology teacher Amy Goodyear. The team won Best in Show for overall experimental design for the state of Virginia and the International title for best experimental design for the 2023-2024 international Plant the Moon Challenge. This is the third time a Loudoun team has won in three years under Goodyear.

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This is the second year Heritage students have participated in the challenge, which was brought to the school by Goodyear. Goodyear also led it for a year at the Academies of Loudoun.

In 2022 Goodyear’s students were international winners and in 2023, a group of students were named Best in Show for evaluation of results for the state of Virginia.

Purslane Gang will present their research and be recognized for their accomplishments June 1 at an awards ceremony.

Alexis Gustin
Reporter