

Science Students Capture 4th and 5th Place in State Fair

Engineering and chemistry investigations by University School 8th grade students Elizabeth Cornfeld and Danielle Bimston garnered state awards. Both students are first-time state qualifiers who captured first place wins at this year's Broward County Science Fair before moving on to take state-level honors.



Interview excerpts with Danielle Bimston, 5th Place Winner:

"You have to keep trying even when it seems like things might not work out. Just persevere through those times because it is not as fun to get a science experiment right the first time.

"The experiment I chose was an electrolysis project, which is the process during which you put voltage through a saline solution and it breaks down the particles in water into hydrogen and oxygen, and it breaks the salt down into chlorine [similar to saline systems for pools]. But, what I really measured was the amount of hydrogen gas that built up, and I got 'how great is the rate' by measuring the time it took for the gas to build. I measured my salt in molar amounts and my voltage in volts. I used a glass jar, test tubes, alligator clips, batteries and natural salt to make sure there weren't any added minerals or vitamins because they can all affect how fast the process is."

"Dome Sweet Dome" by Elizabeth Cornfeld, 4th Place Winner

Interview excerpts:

"A geodesic dome is the only structure that gets stronger as it gets bigger. Because it is made up of triangles, it is able to equally spread the weight.

"I had to build six structures. I made a small and large geodesic dome as well as a small and large pyramid and cube structure. I put weights on each of the structures and recorded when the structure started to fail, and when it failed completely. For all the small structures, they were stronger than the larger ones except for the geodesic dome. So the larger pyramid was a lot weaker than the smaller version, and same with the cube. [This experiment shows why] geodesic homes are so strong. Epcot is a big geodesic sphere – you can really use the geodesic design for any kind of structure including a house or greenhouse.

"I like that science is hands-on, and that I get to experiment and mess up sometimes. I get to use critical thinking and figure out how I am going to change what I messed up and make it better."

Middle Students Perform Well at County Level

All University School Middle School students who qualified also placed in this year's Broward County Science Fair.

1st Place (Advanced to State Competition per this Article)

Elizabeth Cornfeld & Danielle Bimston

3rd Place Winners

Sam Rier – Detecting Danger in the Lunch Bag

Carolina Kapp – Cover Up Fabrics as Sunscreen

Team Project: Chase Winston, Sophia Rabassa & Kaitlin

Feinberg – Ants in Action Cause a Reaction

4th Place Winners

Team Project: Sam Bennett, Connor Starkman & Michael Aji – Cell Phone Radiation