

# Virginia Beach students blast off in rocket contest

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Front row, from left: Roshni Bhanderi, Blair Cutting, Ron Garrison, Engineering Technology instructor. Back row: Warren Cutting, Rocket Club volunteer/mentor; John Burke, Carlos Mora, Katelyn Faulk. (photo courtesy of Advanced Technology Center)

## MEET THE ROCKETEERS

Members of the rocket club at the Advance Technology Center in Virginia Beach share their interests and blast-off tips, with some humor intended. Remember their competition involves building a rocket assembly that can return an egg safely to Earth.

**Katelyn Falk** rides her own horse, enters jumping contests and plays tennis. Advice: "Always make sure the parachutes are attached to the rocket."

**Carlos Mora** enjoys playing his guitar and is into scuba diving. Advice: "Scrambled eggs are better when cooked."

**John Burke** is a youth advisory leader at a church and a musician. Advice: "Simple is always best."

**Roshni Bhanderi** enjoys service projects. Advice: "Make sure the egg is well-protected because egg guts are gross."

**Blair Cutting** is in the Civil Air Patrol and has just been accepted into the Governor's School for the program at NASA Langley Research Center.

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VIRGINIA BEACH

Yes, it is rocket science. And a five-person team from the Advanced Technology Center in Virginia Beach will compete in the world's largest rocket contest next week.

In April, the Engineering Technology Rocket Team members beat the scores of 607 other middle and high school student teams from across America.

On Saturday, it's the final fly-off of the Team America Rocketry Challenge in Northern Virginia. Winners get to go to an air show in Paris, but the local rocket club began with a smaller appeal, said Ronald Garrison, engineering technology instructor.

"Kids like things that go 'bang' and fly off into the air," Garrison said about his club members, students from 10th to 12th grade.

The rocket challenge develops team-building skills and helps students find a career focus, Garrison said.

"When students first come in, they all want to be engineers and make good money," he said. "I got the club going so students could narrow down what their engineering interests are."

Rocketry, like engineering, is focused on problem-solving. And the students building the rocket have had their share of it.

They had to use a computer program on rocketry, for example, to figure out exactly how far the rocket needed to go and how much power it needed to get there.

But the main part of the competition focuses on a hen's egg – Grade A, large. It's the rocket's payload and must return to Earth unbroken. The rocket cannot weight more than 2.2 pounds at lift-off. The rocket's nose cone is where the egg and altimeter are stored.

"My kids brainstormed, for weeks, on how to keep the egg from breaking," Garrison said. "They tried jamming peanut butter around the egg, cotton balls, marshmallows and eventually settled on foam."

For the competition, the rocket must climb exactly 750 feet and stay aloft for between 40 and 45 seconds – using a 15-inch diameter parachute for a recovery device.

"Our students had to design and build a stable, self-generated rocket all by themselves," said Garrison, a teacher for 37 years.

Warren "Skip" Cutting is a long-time mentor at the rocket club who works as an operations supervisor for Virginia Dominion Power. He and his 17-year-old daughter Blair both belong to the National Rocket Association.

On the same day his daughter received her Level 1 Certificate, he received his Level 3 Certificate.

"I love the father-daughter aspect of mentoring in the Rocket Club," he said. "But what it's done is renewed my faith in our American youth. Given a challenge, these kids can achieve it."

The students are competing for \$60,000 in prizes and scholarships and the chance to attend the International Air Show in Paris, France. They face 99 qualifying teams from 33 states.

Club members spent ha half a year on rocketry design, practice launches and simulated flights. The club meets weekly at the Advanced Technology Center, which is on the Virginia Beach campus of Tidewater Community College. Students are from 10th to 12th grade.

The club is a great way for students to get real aerospace engineering experience and haveit's also a lot of fun,

Team America Rocketry Challenge combines fun with science, said Marion Blakey, president and CEO of the Aerospace Industries Association.

"We are delighted that Advanced Technology Center has joined this important effort," he said.