

# Area high school students love Ninth Annual Trebuchet

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**GODFREY** – In the days of heavy STEM (Science, Engineering and Math) activities in schools, the Ninth Annual Trebuchet Event at Lewis and Clark Community College is a jewel for high school participants.

The Trebuchet is the brainchild of **LCCC Professor of Mathematics Kevin Bodden**. Bodden is also coordinator of engineering science at L&C. In its ninth year, it has become a treasure for those who take part from around the area. St. Louis area high schools also like to get in on the action. This year's edition was held Friday at LCCC's George C. Terry Arena.

“It is a really great thing,” he said. “It is a great time for the kids to get together and do some applied work with science; the whole STEM idea. They learn teamwork; they learn physics and just have fun in and educational experience. I think several schools really looked forward to it this year.”

Several area schools participated, including **Marquette Catholic, Carrollton, Jersey, Highland, Bunker Hill, East Alton-Wood River** and multiple St. Louis-area high schools. A total of 150 students overall took part in the Trebuchet competition.

Bodden said the students design and test their trebuchets, then write reports and document the experience of making them. The students devise a budget for materials

and some provide computer-animated drawings with their project. Some teams have the trebuchet experience built into their curriculum, while others do it after school.

“They turn in reports and we grade them separately,” Bodden said. “In the competition here, we see who has the best accuracy. It is a double-elimination tournament and the last one standing wins. We have already graded the reports that go with this year’s competition.”

Trebuchets were designed and used in medieval times as a military engine for hurling heavy objects, such as rocks weighing hundreds of pounds. The trebuchet typically consists of a pivoted wooden arm set in motion by the fall of weight, and works by using the energy of a raised counterweight to throw a projectile.

Teams of high school students competed with trebuchets they have designed and built using their knowledge of physical science. Instead of rocks, they hurl rubber balls. Each team works for months, planning, designing, building and testing their trebuchets.

Teams are judged on a report, which documents their efforts and results as well as the design and history of trebuchets; CAD drawings; and their performance in competition, measured in distance, accuracy and presentation of design.

“Students have fun during the entire process from designing and building the trebuchets to competing in the contest. All the while they are learning about science and technology through exploration and teamwork,” said Bodden. “The event fosters development of skills in measurement, report writing, critical thinking and time management – all vital for those pursuing careers in engineering and engineering technology.”

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