



Northwest Iowa  
Community College

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## NEWS RELEASE

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### **Northwest Iowa Community College Hosts Second Annual High School Engineering Expo**

Northwest Iowa Community College hosted the second annual High School Engineering Expo Wednesday, May 7. Just under fifty students from area northwest Iowa high schools participated in this daylong event. The object of the NCC Engineering Expo was to promote engineering as an exciting field for young people and to assist high schools in providing STEM education outside of the classroom. The competition consisted of three phases: egg launch catapult, poster presentation, and a problem solving competition.

Each of the teams conceptualized the design and built their catapults prior to the competition. The day of the Expo they set up their catapult in a designated launch area and launched raw eggs at a bull's-eye target. Each team had three practice shots and five scored shots. This field competition counted for fifty of the total one hundred sixty possible points.

The students also needed to create a poster that needed to include the calculations of predicted distances of the catapulted egg, documentation of the design process, and a list of materials used. The poster needed to be visually attractive and demonstrate the group's understanding of the engineering principles involved. The poster counted for fifty points.

A new component to the Expo this year was a Problem Solving Competition. This competition was simply that the teams needed to duct tape one person from their team to the wall and see how long that person would be suspended to the wall without touching the floor. They were judged on the total amount of duct taped used, the weight of the student, and how long the student stayed taped or suspended to the wall. The students didn't know what the competition rules were until the time of their competition. Once the instructions were provided they had fifteen minutes to decide as a group what their strategy would be and to complete the given task. The problem solving competition counted for sixty points.

Trinity Christian High student, Shelby Altena, said, "This competition was really fun. I liked seeing our machine perform well. I was really glad we hit the bull's-eye with our eggs. I wasn't sure we could do it when we first started this project in March."

Christy Korver also from Trinity Christian added, "The whole process was fun. This is a great way to learn physics. In the classroom you deal with a perfect or ideal world with no variables like the wind or heat. It's fun to get out and do something in the real world and see it work! It was also really interesting to see all the other teams' projects."

Trinity Christian's Team Advisor, John Huizenga, used this as an extracurricular activity at Trinity. "This wasn't a classroom assignment or project" stated Huizenga. "These students worked after school and on Saturdays to be ready for this competition. I think it's important for kids to have opportunities other than your traditional sports programs to participate in. I personally think this is fun and exciting stuff and I've been thinking of a way to get together students with similar interest as mine to work on a project. The Expo and this project were great timing and worked for my students. It was a lot of fun".

Not everyone at the competition was participating in the Expo. Pete Haag, 7<sup>th</sup> grade math instructor from St. Patrick's school in Sheldon, brought his 7<sup>th</sup> grade math class to watch the catapult competition. "I came today to get my students excited about the possibility of participating in this type of event in the future" stated Haag. "When kids have the chance to be creative it's neat to see how much ingenuity they can put into it. I wanted them to see some real life applications of math and to get excited about it."

Central Lyon student, Dalton Skidmore, said, "I thought this was a really good learning experience. I liked the premise of the competition and I liked seeing everyone else's catapult designs. I would definitely recommend this competition to other high school students – you learn a lot and it's a lot of fun!"

Steve Waldstein, Dean of Applied Technology at NCC said, "It was great to have all of the high school students and their instructors on campus showcasing their designs for the trebuchet/catapult competition. You could definitely tell a great deal of thought and planning went into each entry. This year we had many different designs and overall the day was a success. Thank you to our industry partners for helping make this event possible for our area high school students."

### **Winners:**

#### **Overall Traveling Trophy Champion 2014**

Egg Launch Eggsellence - Trinity Christian High School

#### **Egg Toss/Trebuchet**

1. Egg Launch Eggsellence - Trinity Christian High School
2. Puttin on the Hertz - Rock Valley Community School
3. H-M-S Hurling Hawks 1 - Hartley-Melvin-Sanborn

#### **Problem Solving**

1. Egg Launch Eggsellence - Trinity Christian High School
2. Shop Orabs - Sheldon High School
3. H-M-S Hurling Hawks 1 - Hartley-Melvin-Sanborn

**Participants:**

**H-M-S Hurling Hawks 1 - Hartley-Melvin-Sanborn**

Daniel De Groot-Teacher  
Logan Rozeboom - Leader  
Kaylee Nelson  
Ryan Flynn  
Matt Pals  
Kendra Zeutenhorst

**H-M-S Hurling Hawks 2 - Hartley-Melvin-Sanborn**

Valorie Traylor- Leader  
Brett Waechter  
Nick Hinkey  
Patrick Ewoldt  
Kassi Schurr

**Orange City Career Academy - Orange City Career Academy**

Chris Stotz - Teacher  
Caleb Brewer - Leader  
Josh Heynen

**Extreme Rockets - Rock Valley Community School**

Todd VanderVelde - Teacher  
Casey Vermeer - Leader  
Liz Richter  
Sam Blum  
Brandon Rau  
Kaylee Johnson  
Chase Vermeer  
Courtney Steins  
Logan Schwanke

**Puttin on the Hertz - Rock Valley Community School**

Joy Hurst - Teacher  
Logan Steins - Leader  
Katie Greene  
Karen Sanches  
Chelsea Butler  
Seth Hoogendorn

**The Dutchmen - MOC-Floyd Valley High School**

Ben Montgomery - Teacher  
Collin De Graaf - Leader  
Daniel Van Klompenburg  
Nick Schuetz  
Josiah Hulst  
Michael Anderson  
Trevor Scholtens  
Max Eggert

**Egg Launch Eggsellence - Trinity Christian High School**

John Huizenga - Teacher

Jake Van Engen - Leader

Dolan Boonstra

Gysbert Huizenga

Abby Eppinga

Christy Korver

Shelby Altena

**Sioux Center - Sioux Center High School**

K.C. Feidler - Teacher

Anton Vonk - Leader

Treyton Gros

**Central Lyon - Central Lyon High School**

Bill Allen - Teacher

Curt Feidler - Teacher

Jacob Kumba - Leader

Marcus Haselhoff

Andrew Metzger

Drew Roskam

Dalton Skidmore

**Shop Orabs - Sheldon High School**

Chris Stotz - Teacher

Trevor Smith - Leader

Alex Albrecht

Tyler Brink

Nicholas Huesman

**Sponsors of the Event:**

AMPI, Sanborn

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Keiser Aluminum Wheels, Orange City

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Rock Industries, Rock Valley

Simonsen Manufacturing, Quimby

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