

# S.T.E.A.M. Festival

Lincoln Intermediate

May 28, 2015

## STEAM Festival at Lincoln Intermediate!

by: Aly Jumper and Ashley Flatebo

What a great night for Lincoln Intermediate! On May 28th, 2015 we hosted the 2nd annual STEAM festival! Businesses came and presented some of their products or told us what their business did and how careers in their field apply to science, technology, engineering, arts, and math. We 3

Catering provided food for the evening as guests were invited to peruse the projects made by Lincoln Intermediate students as well as the many different displays from over 20 businesses from several locations including: Des Moines, Belmond, Osage, Garner, and many more from Mason City.



Lincoln Intermediate

Thank you to all the businesses that participated in the 2nd Annual Lincoln Intermediate STEAM Festival!



We want to thank the many staff members from Lincoln Intermediate that helped make the night successful. We would also like to thank Chad Schreck and Hunter Callanan from North Iowa Economic Corridor, Paul Gibbins from the North Central STEM Hub, and Corey Rogers from AEA 267 in their help planning this amazing event for our school!



**GREATNESS  
STEMS  
FROM IOWANS**  
GOVERNOR'S STEM ADVISORY COUNCIL  
NORTH CENTRAL IOWA STEM REGION

# STEAM Businesses

Lincoln Intermediate

May 28, 2015

## 4-H Extension Office-Sharpie Science

by: Alyssa Alert and Gwen Sewell

Have you ever tie-dyed a shirt? Well, if you have it is a tough task to do. This way is much easier. It's called Sharpie science. This way of tie-dyeing involves sharpies and rubbing alcohol. First you draw a pattern on a shirt or piece of cloth then you put drops of rubbing alcohol. Then you watch as the colors combine together to create a tie-dye creation. Are you wondering how this works? Well if you would do the same thing but with water it would not do anything but get it wet. With the rubbing alcohol the solvent in it spreads the molecules to make it tie-dye.



Students experimenting with Sharpies and creating tie-dyed fabric



Students experimenting with virtual reality



## Iowa State University College of Design brings virtual reality to Lincoln Intermediate!

by: Gwen Sewell

Have you ever been on a rollercoaster? Well, Iowa State University brought a virtual reality that made you feel like you were on a roller coaster. If you did you would know. You put these goggles on and there is a screen that makes you feel like you are on a roller coaster. The roller coaster is so close but if you look around you will also see the things around you. So if you look down you could see people. Iowa State also brought a 3D printer although it takes a half-an-hour to make a tiny object come to reality.

It melts the plastic so that they can form it and once it is formed they let it cool down. The last thing that Iowa State brought was these little robots that if you connected them they could make different lights and buzz. So if you connected two pieces they could make a blue light, a red light, or even a green one. Each light gets harder and harder to create.

# STEAM Businesses

Lincoln Intermediate

May 28, 2015

## Curries brings robot to program!

by: Christian Rodriguez

Imagine a world where robots ruled and we did all their work..... that is kind of the type of robot Curries brought to Lincoln Intermediate's STEAM night but that robot did all of our work. You had the chance to program and run one of these robots. There were two options, you could manually set the programs by putting the robot in the desired position or set the program on a tablet that was connected to the robot. You could set up to two programs for the robot. When you finished you just set the robot in the first program, press start, and sit back and watch all your work be done.



## Using engineering design to fly gliders

by: Gabi Johnson

Just imagine, gliding down in an airplane. What would that be like? Well, we didn't get to do that, but we got to do something nearly as cool. We got to make our own glider to race against someone else. There was the option to either choose 2, 4, or 6 g of clay to put on the nose of our own glider and we got to choose where we wanted to put the wings and tail. We got to change the amount of clay or where we wanted the wings or tail to go after our first try. After that we would try it again 2 more times. Some people only got it 200 cm, but others got it 15,000 cm which is 15m. Wow, that's a lot. The little kids had the most fun because they had never done anything like that before.

## Music can make an impact!

by: Emily Read and Anna Lehmann

I gotta feeling whooo whooo, that tonight's gonna be a good night, that tonight's gonna be a good good night, yeah-yeah woo woo. Oh, I was just remembering the STEAM Festival when Music Man Square came and did the song, "I Gotta Feeling." The cool part about was that who had sticks that when the sheet, it had colors on sheet that had when it had your color on it then you hit it on the ground. I think it's really cool that we have the opportunity to have STEAM night. I learned a lot and I think it builds people knowledge of all ages!

**Want to see more STEAM Action from Lincoln Intermediate?**

**Come to the Iowa State Fair on August 23 to STEM Day at the Fair!**

**Lincoln Intermediate will be hosting a table showcasing how engineering and design, as well as programming, can be included into astronomy activities!**

**IowaStateFair**



# STEAM Businesses

Lincoln Intermediate

May 28, 2015

## Sky High Building

by: Alyssa Alert



Have you ever tried to build a tower using just marshmallows and raw spaghetti and one note card? How about with cards? WWA is an architecture company so they brought three fun and different building stations. They challenged you to do something different at each one. The first one was to try and get a rubber troll to sit on top of the tower you built made out of spaghetti and marshmallows. The second station had the challenge of beating two people who worked for WWA in a building-cards-as-high-as-you-can game. At the third station the challenge was to build blocks to make a tower as high as you can until it got unstable.



## Bring in the Mosquitos?!?

by: Jahmen Zimmerman

One of the businesses that came to the STEAM Festival was Valent from Osage, Iowa. Valent produces products for agriculture, public health, and forestry as well as plant growth regulators. In the valent mosquito room at the STEAM festival they had a jar of mosquito larvae and they looked like tiny white worms squiggling around in the water. Then they had eggs in a little container. They would experiment on the larvae using a chemical that can control the arrival of the mosquitoes. It was really neat to see the science they use and how a larvae grows to be a mosquito.



## Slippery Science...

by: Aly Jumper



Lime Creek Nature Center is a nature reserve in Mason City, Iowa. You can go and see pretty much every species in the state of Iowa. On May 28th 2015 the Lime Creek staff brought a Fox Snake and a Striped Skunk to the STEAM Festival. You could touch the snake but you had to have a Rabies shot to touch the skunk. The skunk was not able to spray, for safety purposes. One thing that I learned about the snakes was that their natural habitat is by water. Touching the snake was awesome because I really like snakes!!

# STEAM Businesses

Lincoln Intermediate

May 28, 2015

## Careers in STEAM

by: Emma Garrett

If you were to pick any career, what would it be? That's the question we were asked early on in Trimester 3.

We could be anything from a neurosurgeon, to a teacher, to a smokejumper! It was our decision.

After we chose a career, we researched more about our career and came up with a list of 15 questions or more that we had to answer. After that, we created a web and went deeper into different topics such as wages, college, skills, and qualifications. Here comes the fun part, we got to job shadow someone that has the same career that we had chosen. If you couldn't find someone to shadow, you could look up youtube videos online. You made 10 interview questions to take with you on your shadow. After your job shadow, you have to do a critical thinking sheet. The critical thinking sheet asked questions that made you go more into depth with your career choice. When you finished with that, you got to take all of the information you learned so far and you made a presentation for your classmates to see. You also got to make a tri-board, which would be displayed at the STEAM festival. Your tri-board would be displayed with the rest of your family's. This unit was a lot of work, but it is all worth it in the end.

Thanks to all the businesses that participated in our STEAM Festival!  
We will see you next year!

### Iowa Agriculture Literacy Foundation



### Blank Park Zoo



### Iowa Geological Survey



### Dealerbuilt



### Stellar Industries



Special Thanks to Nutriquest,  
Larson Manufacturing, WHKS,  
EATON, Advance Solutions

Corporation, Zoetis, Mason  
City Public Library,  
Stockman House, MacNider

Art Museum, Alliant Energy,  
WESO, Principal, and Henkel  
Construction for participating!

