

Name of your organization for event program and signage:	Exhibitors are asked to provide a hands-on activity for students. Tell us what you will do, what the kids will do, and the materials you will use.
Wartburg College (Science Education)	There will be animals (tortoise, hedgehog, etc.). The students will make paper snakes (paper, glue/staples, and plastic eyes). There will be information about STEM at Wartburg College.
John Deere Waterloo Works	Making Slime to review chemical reactions Materials used: contact solution baking soda glue food coloring sandwich baggies for kids to take home
East Buchanan Robotics - FTC	Kids will be able to drive and operate the team's robot for the current FTC season, as well as we will have a basic programming activity (using cards and a game board rather than a computer) available for the table as well.
University of Iowa Department of Chemistry	We will bring some fun, safe chemistry experiments. We will use liquid nitrogen to free gummy bears and flowers, we will turn water into a solid, and we will learn how chemists work by making flubber. We have done these experiments before and know how to do them safely. We will use supplies that we bring, we do not need electricity.
Power Engineering & Manufacturing., Ltd.	We have a planetary gearbox that we use for demonstrations to show a 50:1 ratio. We have a kid turn the crank on the 50 ratio side and an adult turn the crank on the 1 side. The 50 side is easier to crank than the 1 so the kid is stronger than the adult. (I will be bringing an engineer with me so they can explain it better than I just did) We also have a clear Split Power Gearbox with colored gears that the kids can turn the cranks on.
ISG/Struxture	Building towers out of foam blocks and verifying their structural ability to withstand a horizontal wind force applied by fans. We may also incorporate a VR or drone systems that we currently use on our building projects.
Green Iowa Americorps	Environmental Education.
Hawkeye Community College	Our booth will display a synthetic human. The SynDaver the most realistic synthetic representation of human anatomy ever produced. The SynDaver is complete with all bones, joints, muscles, organs and tendons in normal human anatomy. The visitors of the booth will put on gloves and be able to explore the human body on a guided tour with one of our Anatomy professors.
National Mississippi River Museum & Aquarium	The National Mississippi River Museum & Aquarium has some new animals that might give you the heebie jeebies. Come meet live insects and arachnids upclose and learn why they are awesome to have around!
ISU Extension Black Hawk County & FoodCorps	We will be creating "seed balls/seed bombs made from soil and loaded with seeds. These seed balls can be planted whole or dropped in plant friendly areas to provide plants for pollinators and wildlife. This is a hands-on activity where the kids will roll there on seed balls on site and decorate paper bags to take them home in.
University of Wisconsin-Platteville College of Engineering, Mathematics and Science	Have you ever wondered how parachutes work? Come and learn about the physics of gravity and air resistance. Build your own parachute to test what you learn!  [We'll have different materials (paper, plastic bags, string, yarn, etc.) to help kids build different parachutes. We'll also have a small step ladder to drop-test the parachutes.]

Central Rivers AEA	We will have different robots that are offered through Central Rivers for students to code and program to drive.
Iowa State University Student Chapter of American Meteorological Society	We will have weather jeopardy, a wind chill activity, and crafts for all ages! Regarding the crafts, we make cotton ball clouds and anemometers. We plan to also have a poster showing pictures of what we do as an organization.
Iowa State Alumni of Black Hawk County	Our hands on activity will demonstrate building strength by testing the structural strength of triangles and squares. The students will use toothpicks and gum drops to test their theory of which shape is stronger. Students will be able to build their own creative structures from gum drops and toothpicks. Each student can take their structures home.
Green Iowa AmeriCorps	We will be bringing our energy bike, which is a bike connected to a light board that the kids will power and try and light up a variety of light bulbs. The purpose of the energy bike is to highlight how different types of lightbulbs (LEDs, CFLs, and incandenscent) use different amounts of energy and to get kids thinking about energy efficiency. The materials we will use will include the energy bike and light board which we will bring with us. We will not need access to an outlet.
The Iowa Children's Museum	ICM Staff: Staff will set up tech- decks & materials to build a ramp for fingerboards.  Students: Students will use the design cycle to build and test their ramps. Students can design their own skateboard deck too!  Materials: Tech Deck Fingerboards Various blocks Cardstock Tape Markers Scissors
SHPE North Eastern Iowa Chapter	The project has two parts. The front is a coloring page, which younger students can enjoy coloring a drawing and the back is a circuit that the students will build with provided materials. The circuit is essentially a battery with a LED, and when you fold the corner over you are completing the circuit and the LED lights up. The following materials will be used: • Paper Templates • Copper Tape • Batteries • LED • Coloring Materials
Camp Invention	Students will be given a challenge and asked to "invent" something to solve that problem. Materials to be used will be a variety of recycled items (newspapers, yogurt containers, lids, etc.) and masking tape - lots of it!
Family Health Chiropractic	Let them see and move a working model of the spine. Offer free spine screenings so they can see the results. Send them home w/ a coloring project!
Cedar Valley Makers	Single coil motor kits electromagnetism demos, maker displays
Girl Scouts of Eastern Iowa and Western Illinois	Learn robotics with the Girl Scouts! We will have ozobots, dolls on programmable scooters, and parts to build small robots.

Bayer Crop Science	We will have a display of several bottles of chemicals that would be harmful to ingest and some very common things that would be safe. We have the students try and guess by appearance which ones they think would be ok to eat or drink. We want to stress the importance of proper labeling and identifying of all chemicals and food.
Iowa Speedway	Kids will have the opportunity to build a Lego car and test their engineering skills on our 10ft ramp.
Denver Cybots	We will demonstrate our robot and let kids drive a robot.
Cedar Valley Society of Women Engineers [CV SWE] and Jr	We have not yet selected a project for this year's festival.
Waterloo High School Robotics	We will send an update once we select the project. FTC and FRC robotics team, driving robots and talking about the competition team.
FTC Robotics Team 5445	Youth can operate the robot using remote controls and assistance from the robotics team members. Youth can also ask questions about why robotics programs are important and team members can ask those questions.
Waterloo Fire Rescue	At this time I am not sure what we will be doing. I will let you know prior to the event We plan to have two demonstrations.
ASM International - Northeast Iowa Chapter	One is creating models of how atoms connect together using marshmallows and toothpicks. These will be in take-home bags.
Black Hawk County Farm Bureau Agriculture in the Classroom	We will be making bracelets to teach what nutrients plants need and what they provide for plants. Also, we will have plants that show how they take up nutrients.
Waterloo Center for the Arts	design, build and race a wind boat. paper, scissors markers and straws.
John Deere INSPIRE	Tubulum and sound wave display
Upper Iowa University	Have a Minute to Win it? Grab a partner or more and join in our Minute To Win It challenge with our education students, Upper Iowa University Center Staff and Professors. Will have 8-10 different games for all ages throughout the event!
Science Center of Iowa	We will be bringing a wide variety of science experiments that students of all ages can come and experience!
Wartburg College	3 activities to educate on important health issues: hand hygiene, heart health, and tobacco prevention. Hand washing: a bowl of water with pepper (germs) floating on top; when dish soap touches the surface, the germs (pepper) scatter. Heart health: fresh pig heart safely within a ziploc bag for observing/touching. Visual aid to teach the importance of exercise and a nutritious diet to cardiac health. Tobacco prevention: Mr. Gross mouth, plastic model showing the health effects of tobacco use
K&W Electric, Inc.	We will have a trailer that the kids can walk through, which provides virtual reality simulation to different skilled trades jobs.
Iowa Public Television	Kids will do a sorting challenge that speaks to recycling, composting and trashing items. We will talk kids through looking for the recycling triangle to reduce their trash by reusing items, compost and recycling. Kids will learn how reducing, reusing, and recycling can help them, their community, and the environment by saving money, energy, and natural resources.

University of Iowa Health Care STEM Education	<p>UI Health Care will be providing interactive medical activities led by current medical or other health professional students. Activities may include human organs that have been plastinated, laparoscopic surgery, or other medical activities to be determined. Kids and guests will have the opportunity to touch human organs, try their hand at minimally invasive laparoscopic surgery, or engage in other medical activities.</p>
Testing	Testing
Waterloo-Cedar Falls National Society of Black Engineers	Will contact when exhibit has been selected
Society of Manufacturing Engineers	<p>This particular exhibit doesn't provide any hands-on activity for the students. It showcases the talent of students in making an awesome tractor. Students who made this tractor will be available in explaining more details about the tractor.</p> <p>We'll also share about SME Vision, Mission and ways we support community in providing manufacturing/education resources required for the residents.</p>
Tallgrass Prairie Center, UNI	We will bring table models of crop and prairie root systems made from twine and other materials, fuzzy craft balls to represent nutrients, and straws for participants to blow through to represent water flow. A tub on the other side of the table will represent Iowa streams and rivers. The goal for the participants will be to get the nutrients past the roots. The goal for the roots will be to capture the nutrients! A real prairie root specimen will be displayed for context.
Tri - County Child & Development Council, Inc.	<p>Provide support for parents of pre - K children as they explore the two stations we will provide at the exhibit. These activities will be child directed. Children will be able to explore three sensory tables and create PVC models. Materials to be used include PVC pipes, sand, water and oobleck.</p>
4-H Lego	<p>Lego solutions.</p> <p>I am wanting to register for 2 tables for 4-H and 2 for my Lego teams. Thanks, Diane</p>
Black Hawk County 4-H Program	We are not 100 percent sure what our hands on activity will be but know it will be STEM all the way. :)
Viking Pump	<p>We will have a variety of hands on pumps along with a working display. One of our units will be tied to a computer to convert the number of times a kid turns the pump shaft over into a corresponding flow rate of Hershey Kisses pumped (or other Viking customer applications).</p>
TDS Automation, A Doerfer Company	We will be providing interactive kids level CAD software demos.