

Organization	Activity
Bodine Electric Company	
Clarke University	Instant Gels using alginate and calcium chloride
Clarke University	Understanding Sound with Tuning forks, musical instruments
DMASWA/Loras College/Sustainable Schools AmeriCorps	Booth will feature an opportunity for public input/survey completion of climate change knowledge that will be used by City of Dubuque to produce Climate Action Plan. Booth will also feature hands on activities for youth to learn about reduction and proper disposal of everyday materials.
Dubuque Area Society of Women Engineers	We will bring snap circuit kits and guide the students through various projects. This will give the students an introduction to electrical engineering and we will expand to other engineering disciplines as well. This activity is meant for boys and for girls and will be interactive for the students. The difficulty level can be adjusted depending on age level.
Dubuque County Farm Bureau Agriculture in the Classroom	Measuring/ weighing snack ingredients that represent the ingredients in a cow's feed ration. The materials used are pretzels, Cheerios, candy corn, gold fish and M&Ms. The kids will measure the ingredients to go into their own snack bag

<p>Dubuque High School Robotics</p>	<p>We will engage children in driving small robots in a "challenge" or "free" driving format. We will provide information on the First Tech Challenge and First Robotics Challenge robotics teams for Senior, Hempstead and the Alternative Learning Center in Dubuque.</p> <p>We will use a variety of robots, electronics, pneumatic, and a playing field to accomplish our exhibit.</p>
<p>Engineering Services and Products Company</p>	<p>We will offer a demonstration on hydroponic growing, and an activity of building structures out of spaghetti and marshmallows.</p>
<p>Fullness of Life Chiropractic</p>	<p>We will educating about the brain and nervous system by creating a model & provide brochure along with complimentary spinal health assessments.</p> <p>Materials are as follows:</p> <ul style="list-style-type: none"> -red play dough (to re-create the brain, using a brain mold) -cooked spaghetti (to represent the nerves/brain stem) -gloves (for kids) - metal/aluminum tray/s (to create model) <p>-and provide information about the nervous system and how Vertebral Subluxation Complex can affect our nervous system & provide spinal health scan</p>
<p>Girl Scouts of Eastern Iowa and Western Illinois</p>	<p>Shape Up your Math Skills with hands on Tangrams and Wedgits.</p> <p>We have both large and small sets of tangrams that attendees can use to create puzzles. Kids will work together to solve the problems especially if they are using the large tagrams.</p>
<p>Great Midwestern Educational Theatre (Frogwarts)</p>	<p>We will have a monster creation activity, that uses the randomization of numbers to select eyes, noses, ears, mouths and arms. Students will use the numbers to create a monster and earn a magic wand for their efforts! Older students can earn a wand by catching a snitch (predicting which location the golden ball will slide into.)</p>

Green Iowa AmeriCorps	<p>Part 1: Have a brief discussion on recycling, what it is and why it is important to reduce plastic pollution in the environment with poster.</p> <p>Part 2: A questionnaire to encourage students to become more aware of the plastic usage in their everyday lives, and whether or not they recycle or refuse the use of plastic items.</p> <p>Part 3: Each student receives a cup, which represents a landfill. Candy represents trash. Objective is to not end up with candy in their cup.</p> <p>Part 4 ways to reduce plastic use</p>
Hempstead High School Green Team	<p>In our exhibit, we are showing the effect of rising ocean levels on an island. Students can build a house to place on our island and watch how long it takes the rising water levels to reach the house.</p>
Ideal Chiropractic Health Center	<p>Make a spine out of noodles and candy, illustrating discs, bones and nerves.</p>
Iowa DNR Water Monitoring	<p>The kids will play a "game" that shows how you can look at the things living in the water to tell something about how the water quality is. The game involves rolling dice with aquatic invertebrate photos on them, identifying those aquatic invertebrates using an identification chart, filling out a data sheet and then calculating a metric to determine the water quality rating.</p>
Iowa State University Extension and Outreach - Dubuque County	<p>Come join us to get some hands-on interaction with Makey Makeys. Youth will get a chance to create circuits and create music using fruit.</p>
IowaWORKS	<p>We will have a selfie station to take pictures as different STEM careers. We will also have a dream job board and spin wheel.</p>
John Deere Inspire	<p>We will have our C&F Virtual Reality station for kids and adults to operate our equipment and see our machinery.</p>

Keystone AEA	Planetarium shows every 30 minutes showcasing the night sky, planets, stars and constellations.
Loras College - Biology Program	Hands-on activities available at this station will be: Biology of Taste Preferences, The Smell and Taste of Jelly Bean, What does your heart beat look like?
Loras College - Chemistry	We will provide beads which become colored under UV light and pipe cleaners. Children will construct bracelets, and see how the clear beads become colored under UV light. Also, coffee filter paper and water-soluble markers will be provided. Students will draw designs with the markers on the paper, and use medicine droppers to drop water on the filters, and see the marker colors separate.
Loras College Math Program	Students will fold modular origami pieces and then use them to construct polyhedra. Or, they can play strategy games with us and analyze some of the mathematics involved.
National Mississippi River Museum & Aquarium	Learn about the amazing adaptations animals have while you meet a couple live animal ambassadors from the National Mississippi River Museum & Aquarium up close!
Northeast Iowa Community College	Learners will have the opportunity to reassemble a human torso model. Identification of the organs and their positions within the trunk will show there are no extra parts or room to spare once all the internal organs are reassembled. Bones of the skull and limbs will also be available for assembly; demonstrating how the shapes of the bones dictate the movements at joints.
Northeast Iowa Community Nursing Math-Medications-Nursing	Calculate Math to apply to medication administration. Will have participants draw up colored water into non-needle syringes, after figuring out correct dose. may also apply to tablets to give in a med cup. Will show amount of sugar in different drinks (mountain dew, juices, etc.)

University of Northern Iowa - STEM	A UNI Mascot has been Panthermapped! Use multiple areas of science and technology to analyze the evidence left at the scene of the crime and reunite us with our beloved Panther!
University of Dubuque	We will be making volcanoes out of lemons and baking soda. The kids will be able to mix the baking soda and lemon juice and see the reaction!
University of Dubuque	Detecting heartbeat on a fingertip. We shall use a non-invasive fingertip probe to demonstrate the electrical activity of the heart and heart rate using Labpro heart rate variability software. The students can observe the activity of their heart and the changes associated with increased heart rate after they run around the exhibit area.
University of Dubuque - Web Of Life	We will have students test their knowledge of the waste that they would produce in their homes. Students will take plastic balls with different waste products (coffee grounds, plastic bottles, glass, etc.) and they will have to place them in the right bin, either recycling, compost, or trash. It is based off the garage rules in the City of Dubuque.
University of Dubuque Aviation Department	Our booth will display some tools and testing used to determine pilot candidates. Kids will be tested for hand-eye coordination on a flight simulator to see if they can emergency land a plane through the clouds! Then, they'll be tested to their limits on a GLOC gravitational simulator to see if they can handle the bone-aching forces of extreme gravity. Lastly, we'll test their mental wits against an Air Traffic Control Simulator to see if they can save the day and prevent a Mid-Air Collision!
University of Dubuque Education	Students will use identify objects by the sounds they make.
University of Dubuque Mathematics Department	We will play dice games. Materials: Dice, paper.

<p>University of Dubuque Physician Assistant Program</p>	<p>Imagine your favorite food....why do you eat it? Food provides the human body with nutrients and a source of energy to make us function! But how does this happen?! Explore the gastrointestinal system at the UD-Physician Assistant booth! Learn what food is healthy, how food changes after putting it in you mouth, and which organs are in the GI system.</p>
<p>University of Iowa Health Care STEM Education</p>	<p>University of Iowa Carver College of Medicine students will engage visitors in hands-on medical activities. Visitors will get to try their hands at minimally invasive laparoscopic surgery via a surgical trainer and take an up close look at human organs that have been plastinated.</p>
<p>UW-Platteville College of Engineering, Mathematics and Science</p>	<p>We have two activity options planned. One is a marshmallow launcher made from paper cups and balloons. One is an experiment to see what volume of water fits on the head of a penny. We're still deciding which one we will do. If you think one would be more effective than the other, just let me know. I can hopefully let you know by the end of the day on 3/29 which one we will do.</p>