

# Bridges Career Exploration Day

## A Summary of Career Cluster Activities

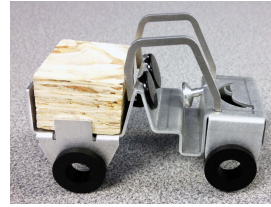


### Manufacturing

- Pick up a “job traveler” form to follow the steps of building a miniature replica of the Arctic Cat Prowler ATV while learning the steps of the manufacturing process. Complete the form and be entered into a prize drawing for a chance to win a Microsoft SurfacePro notebook, Beats Solo3 wireless headphones or a corn hole game.
  - *Design*: featuring the HoloLens (virtual reality glasses used in designing & engineering new products)
  - *Sheet metal cutting & forming*: the ATV body
  - *Roto-Molding/Thermoforming*: the seats
  - *Rubber molding*: the tires
  - *Wood manufacturing*: the cargo box
  - *Stamping & Assembly*: the roll cage
  - *3D Printing/Design Engineering*
  - *CNC Machining*: the steering wheel
- View a Textron Arctic Cat ATV and see its parts that are made in the Brainerd Lakes area.
- See how the parts of a yo-yo are made, via CNC Machining technology, then assemble a yo-yo using an arbor press to take home.
- Explore 3D technology and make various prototype parts for the Arctic Cat Prowler and other products.
- Meet Baxter, a sophisticated pick-n-place robot, and see how this technology is used in advanced manufacturing.
- Watch demonstrations in robotics technology, programming and integration used in manufacturing.
- Participate in “virtual welding” using one of three welding simulators on display.
- Practice welding (in the CLC Welding Lab) on metal cut-outs of the state of Minnesota.
- See robotics in action as a robotic arm serves a piece of candy.
- Participate in a partner programming activity
- Create Lego parts using a multi-view printer.
- Measure manufactured parts for quality and check actual parts to compare to blueprints.
- Think like an engineer to create a structure according to the given instructions with the given materials.
- Control a robotic arm using electronic controls or hydraulic controls to complete a given task.
- Plus, spin the prize wheel and answer manufacturing trivia for a chance to win cash or a great grand prize.

### Engineering

- Learn about the future face of engineering
- Discover how writing is used in engineering
- Explore how bridges and roads are built
- Understand how engineering impacts local communities
- Experiment with water and learn how engineers manage water flow



### Business & Finance

- Explore the world of money with financial representatives.
- Learn how to detect counterfeit currency
- Practice skills to apply for a loan
- Learn about credit reports and the importance of your credit score
- Explore opportunities in real estate
- Discover how careers like sales, marketing and human resources are used in all businesses.
- Earn real cash for visiting careers areas.

### Hospitality & Recreation

- Learn about careers available in hospitality
- Watch chef demonstrations
- Try putting and meet area golf professionals
- Play a game to learn more about hotel management
- Learn about table settings and try your hand at serving with a tray
- Explore special event planning
- Learn about fun jobs with waterfront and recreational services
- “Get social” with Brainerd Parks & Rec
- Experience massage therapy
- Discover the world of cosmetology

### Public Safety

- Talk with emergency medical technicians and paramedics
- Watch exciting demonstrations on fire, tasers & safety
- Learn about bomb squad training tactics
- Talk to 911 dispatchers
- Learn from Correction Officers and careers and internships
- Explore a crime scene preservation exhibit
- Understand more about the use of drones and body cams
- Talk to someone in the military

### Education

- Participate in a “Picture Yourself Working with Children” activity (by library)
- Become inspired to teach! Learn about how to grow into an effective educator. (south hallway)

## Transportation & Aviation Automotive & Heavy Equipment Construction & Trades Marine & Small Engine

- Pick up a “What Glove Fits Your Career?” game card and visit stations for a chance to win prizes for your school.
- See the inside of heavy diesel equipment
- Explore how to do engine repair on small engines and marine vehicles
- Watch a graphic auto wrap in the auto shop.
- See demonstrations and interactive displays from line workers, carpenters, electricians, HVAC and plumbing professionals
- Pull dents out of vehicles with high tech tools
- Paint a vehicle with simulators
- Toss a bean bag through a cylinder and watch it fly
- Use technology to check a car engine’s efficiency.
- Use a simulator to drive a back hoe, front-end loader or, a semi-truck
- Participate in a flight simulator
- Explore an aircraft engine
- Watch avionics demonstrations
- See an airport design demonstration with the Airport Engineer

## Agriculture, Food & Natural Resources

- Take a virtual reality tour to experience farm fields (combine harvesting and plowing), processing plants (for milk, cheese and egg), and livestock facilities (swine nursery barns, dairy milking facilities, beef feedlots).
- Try your hand at rendering (coloring) a landscape plan on paper or the computer with a local landscape design professional (room W142) and earn 5 fish pellets to feed the fish or turtles.
- Walk into an indoor backyard (room W142) equipped with a campfire, patio, plants, benches and other backyard fun all produced by the CLC Landscaping students. Make and eat a mini s'more while talking with college landscaping students and professionals about fulfilling, profitable careers available in designing, building and caring for landscapes.
- Visit the Koi pond designed, created and maintained by college landscape students (lower west wing).
- Explore local food production (room W145) to learn about expanding technologies and methods for growing healthy, sustainable hydroponic and aquaponic tomatoes, lettuce, herbs and other vegetables and fruits all year in Minnesota. Taste micro-greens grown on campus.
- Tour the CLC greenhouse to see aquaponic tanks filled with Tilapia (fish) along with the tomatoes and lettuce the Tilapia help to fertilize. Tours depart from room W145.
- Watch or help plant a variety of plants to be grown in the CLC Gardens. Pick up a free plant that is scientifically proven (by NASA) to be one of the best plants for clean air.

## Health Sciences

- Visit stations to be registered into a drawing
- See how a hospital room is set up and learn about medical professions
- Talk to a hospital pharmacist
- Learn what is involved in health information services
- Explore laboratory work and learn how it’s done
- Understand how you would take care of a postpartum OB patient, long-term care resident or a pediatric patient
- Practice doing vital simulations of heart sounds, bowel sounds and lung sounds
- Give practice injections
- Learn about and experience massage therapy
- Listen to a live baby in uterus and talk to it’s mother

## Computer & IT

- CompTIA training in Information Technology, with an emphasis on CyberSecurity
- Participate in a create-your-own-webpage activity. Generate a link so you can “take home” the code to show others.
- All-in-one training within a lab simulated environment
- Practice working with internal computer components.
- Practice how to setup a new computer.
- Practice how to set attributes on files and folders.
- Learn about cyber security: passwords best practice
- Make ethernet cables
- Create an animation using MIT's Scratch
- Explore how to create a new Android app

## Communication, Art and Design

- Participate in “Olympic” activities to earn bracelets and a chance to win a T-shirt.
- Play the role of a meteorologist and be on camera in front of a green screen. Learn about shooting and editing video and working with motion graphics.
- Meet the Brainerd Dispatch news team — you might ever get interviewed!
- Get your picture taken and learn how to digitally frame your image with graphic designers
- Work with decal graphic applications and watch a live demonstration of graphic wrapping
- Explore the business side of a creative career (advertising, t-shirts, signage)
- Learn about animation and 3D game design

## Liberal Arts

- Try a carnival game
- Listen to the live band Reality Check
- Talk with Liberal Arts faculty