



2019 IGNITE Your Future Career Cluster Activities

AGRICULTURE, FOOD & NATURAL RESOURCES

- Ultrasound an animal to identify its reproductive tract
- The Vet is in! Give a small animal physical & ID skulls
- Combine corn/beans in a high-tech combine simulator
- Explore a farm operation hydraulic simulator
- Catch and tag a fish and determine its age via its scales
- Where's the BEEF? Explore beef cuts, vaccines, byproducts
- Got MILK? Learn secrets to dairy industry quality control
- High-tech dairy tracking: health, breeding & feeding

ARTS, AUDIO/VIDEO TECH & COMMUNICATIONS

- Fly a drone for photos/videos with this cool simulator
- Be a Song Writer/Singer: Dabble with lyrics, put them to music, record your own creation
- Change Your Perspective: Discover the differences between photos from a cell phone vs a high-end camera
- Are T-shirts your favorite clothes? Create magical art through screen printing
- Ignite your creativity in the Create Space - it's a cool idea incubator! Have fun trying a 3D pen, product photo booth, photo manipulation, and wood etching.
- Glass-crashing, high-speed photography wow factor

INFORMATION TECHNOLOGY

- Computer Sabotage: Use detective skills to discover and fix PC hardware issues; learn to tweak performance
- Computer Gurus: Program by coding game mods
- Avoid Being Hacked: Spot and patch cybersecurity holes
- You've used thousands - now step into website creation

BUSINESS, MANAGEMENT & ADMINISTRATION

- Identify your personality strengths and explore fitting business careers
- The Hiring Challenge: From Help Wanted to In-the-Door Resumes
- The art of choosing who to interview
- Feel the hiring power by interviewing mock candidates, and spin the wheel to see who gets the job!

ENGINEERING, MANUFACTURING & TECHNOLOGY

ARCHITECTURE & CONSTRUCTION

- Electrify Your Future with switches, connectors and lights
- Workforce joy sticks - this construction simulator applies your fun skills to workforce demands
- Big Dreams, Big Toys! Enter the Ziegler Cat heavy equipment simulator: feel what it's like to move dirt and load trucks with bulldozers, wheel loaders, excavators
- Experience real equipment outside used for commercial and residential development

- Discover how boom trucks advance construction projects
- Build a small truss using a jig, hammer and tape measure
- Turn blueprint into house wall - will your wall stand? See what goes into safe, secure designs
- Virtual Reality: Day in the Life of a Commercial Roofer - can you handle the heights?
- Build your own wooden phone or tablet holder
- Machines Rule the World!
- Use Solidworks drafting software to create a key

MANUFACTURING

- Assist a high-tech Computer Numerical Control (CNC) machine to create and print souvenir Ignite logo key chain
- Use measurement equipment, follow instructions to assemble designed/machined/printed key chain
- Welders master the heat! Learn safe practices and weld together your own Minnesota souvenir

SCIENCES, TECH, ENGINEERING, & MATH

- Play the high-tech radiography game
- Feel the pull of magnetic particles to improve safety
- Use ultrasound and tomography to save lives!
- Electroplate copper: journey into electrochemistry
- The robots are coming! Manipulate a robot
- Operate a Motor Tachometer and pneumatic circuit
- Drive this student-created race car simulator
- Score a 3D-printed Guardians of Galaxy Groot key chain

TRANSPORTATION, DISTRIBUTION & LOGISTICS

- Keep on Truckin! Route a truck route
- Strap a load on a trailer
- Explore a new semitruck
- Snowplows up close, the safe way - winter is coming!
- Test your automotive skills with this high-tech simulator
- Be the king of the shop! Test your hand dexterity in this Automotive Tools Challenge
- Explore vehicle on-board computer information systems
- Pair your creativity with this virtual auto body painting simulator
- Try your train radio communications (hand and radio); connect train air hoses and feel the power!

HEALTH SCIENCE

- Virtual Reality Dementia - experience the sights & sounds
- Feel the rush of the ER as you try to save this patient
- Dizzy Dose: experience vertigo and its treatment
- Improve your balance and footwork with simple drills
- Measure joint mobility and hand strength

- Learn adaptive dressing techniques
- Glo Germs - can you pass the hand washing test?
- Experience an emergency medical call from start to end
- Dissect a sheep brain with college students
- How well do you know the brain? assemble a model
- Test your patellar reflex
- Be the First to Know: blood type and illness testing - see how microscopic lab results tell doctors how to proceed
- The Sound of Wellness: listen to blood pressure beats
- Just Breathe: learn to assess lung clarity,
- Patients Puke: what puke can tell you
- Measuring wounds: Triage 101
- Be a medical assistant: room a patient, draw blood on a fake arm and do a basic lab test
- TED Socks Challenge - learn the need, the basics, and the high-tech compression option
- Go on a Health Information records scavenger hunt!

HUMAN SERVICES

EDUCATION & TRAINING

- Go on a Dinosaur Scavenger Hunt with preschoolers
- Create a kindness rock - let's pay it forward
- Story Time - can you make the preschoolers smile?
- Ooey, Gooey Fun - preschoolers learn through fun
- Twister - preschooler style
- Hands-on educational activities engage young learners to want to learn more. Learn to engage children and parents

GOVERNMENT & PUBLIC ADMINISTRATION

- We Want YOU at Uncle Sam's military physical challenge rock climbing wall (weather permitting)
- Test your military, mental team skills at a land-mine obstacle to save a soldier

LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

- Law & Order Challenge: Prosecutor vs Defense - Is this case scenario a slam dunk? Test your justice judgment
- Explore police gear and the inside of a squad car

HUMAN SERVICES

- Explore a hearse; learn the human side of death & funerals
- Try hair, nails & skin care tips/tricks you can apply now as you explore cosmetology, nail technology and estheology

And a few more yet to be finalized!