MARKETPLACE FOR KIDS EDUCATION DAY<br>Tuesday, May 14, 2024<br>9:00 A.M. - 2:00 P.M. NORTH DAKOTA state college of science

## Welcome!

On-Line Registration opens Monday, March 18, 2024. All registrations are "first come first served". The registration must be complete before it can be processed.

Registration closes Friday, April 26, 2024. You will be notified when your registration has been received and processed.

## Education Day General Schedule:

(A personalized schedule for each student will be printed on their name badge)
*Note that these times are subject to change

| $8: 45 \mathrm{am}-9: 10 \mathrm{am}$ | Pre-Opening Music | $11: 55 \mathrm{am}-12: 20 \mathrm{pm}$ | (Teal) Non-Project Students Lunch |
| :---: | :--- | :--- | :--- |
| $9: 10 \mathrm{am}-9: 30 \mathrm{am}$ | Opening Rally |  | (Maroon) Non-Project Students View Projects |
| $9: 45 \mathrm{am}-10: 10 \mathrm{am}$ | All Students Attend Classes | $12: 20 \mathrm{pm}-12: 50 \mathrm{pm}$ | (Teal) Non-Project Students View Projects |
| $10: 20 \mathrm{am}-10: 45 \mathrm{am}$ | All Students Attend Classes | (Maroon) Non-Project Students Lunch |  |
| $10: 55 \mathrm{am}-11: 20 \mathrm{am}$ | All Students Attend Classes | $1: 00 \mathrm{pm}-1: 25 \mathrm{pm}$ | All Students Attend Classes |
| $11: 30 \mathrm{am}-11: 55 \mathrm{am}$ | Project Students Eat Lunch | $1: 30 \mathrm{pm}-1: 40 \mathrm{pm}$ | Pre-Closing Rally Entertainment |
| $11: 30 \mathrm{am}-11: 55 \mathrm{am}$ | Non-Project Students Attend Classes <br> Project Students Eat Lunch | $1: 40 \mathrm{pm}-2: 00 \mathrm{pm}$ | Closing Rally |
| $11: 55 \mathrm{am}-12: 50 \mathrm{pm}$ | Project Students Present Projects at Hall <br> of Great Ideas Showcase |  |  |

## Class List and Description

## B. "Breakout" from Traditional Roles!

Feeding a growing world is one of the most vital future needs for all of us! In this session, students will have fun "breaking out" of lock boxes while learning about many career paths that are available to them and how these jobs relate to agriculture and feeding the world. Come and be challenged! Limit 24 Students.

## C. Customs and Border Protection

Handcuffing demonstrate Limit 32 Students.

## D. DIY Breadboard Circuits

Come learn and explore circuit builds and the basics of electricity flow through circuits. In this session, students will become familiar with circuitry components like photoresistors, push buttons, batteries, LED's, capacitors, and breadboards. Each build increases in complexity, and all components are reusable so that builds may be disassembled and recreated! Two 50-minute sessions and one 25minute class. Limit 16 Students.

## E. Electrical Motors

For this class we will use two 20 -minute sessions to explain how electric motors work and each student will build a simple electric motor that they can take home with them. Each student will build a motor kit, and then run the motor using a battery to learn how electricty make a motor turn. Grades 5 and above. Limit 10 Students.

## Electrial Circuits

A 20 Minute session where we will explain how an electric circuit works to turn on a light. Students will build a simple circuit they can take home. The project will have a battery, a switch, and a lamp they will connect with wire and be able to turn the light on and off. Grades 5 and above. Limit 10 Students.

## F. Overview of Being a Fire Fighter

Discussion, question, and answers. Chance to spray water.

## G. Experiments with Electricty

We will be using snap circuits and teaching kids about conductive materials and insulators. Mechanical energy and electrical energy. Limit 24 Students

## H. Young Workers - Talking Safety

Let's talk about safety for young workers. Your first real job could come with real risks. Limit 24 Students.

## I. Energy Opportunities in North Dakota

Discuss what forms of energy exist and what methods are used in North Dakota to produce electricity and other forms of power. Explain the importance of energy relating to our quality of life, environment, and economic impacts to society.

## J. Career Paths in Aviation

Steam as a tool to foster entrepreneurship, problem solving, using critical thinking and career paths to Aviation.

## K. Percussion Explosion

Come and learn how everyday items can be turned into your own instrument! This session, influenced by "Stomp on Broadway", will allow participants to rock out to hip hop and country music! Limit 16 Students.

## L. Lessons About Your Money

The more you know about how to make money, how to save money, and how to spend money, the less likely it is that you will have problems as an adult. Do you know people who never seem to have enough money? If you don't want to live that way, listen up. We have some good information to share with you today.

## M. Manufacture a Window with Marvin

Have you ever wondered how manufacturing works? Join Marvin as we discuss how we go about making as many quality windows as we can in a day for people's homes. There are lots of jobs that make this possible, from engineers to production workers, everyone has a role to play. Limit 24 Students

## N. Introduction to Entrepreneurship

Welcome to the world of problem solving and profits. In a fast 25 minutes you will learn how to create new products like an entrepreneur. Students will participate in a hands-on, upcycle project to learn how to solve problems with creativity. Bonus, they can take home their own project! Limit 24 Students.

## O. Operation LifeSaver

Railroad Safety, trespass prevention, and how to report emergencies that occur while on or near railroad property.

## P. Land Surveying and Mapping

Discovering Land Surveying and how we, as Land Surveyors, help build the world around us by using technology such as Laser scanners, Robots, GPS and Drones.

## Q. Keeping Us Safe

Handcuffing, fingerprinting and online safety.
R. Ride and Drive

Participants will have an opportunity to drive a tractor and/or run an excavator. Limit 12 Students.

## S. Designing Your World

We will be talking through the steps of a design project and finish our discussion by dreaming up a park of your own! Limit 24 Students.

## T. Who Wants to be a Nurse?

We will have a variety of activities for students to participate in reflex checks, ear checks, hearing tests, lung sounds, oxygen and breathing. Limit 16 Students.

## U. Worldwide Animal Conservation

Explore the world of conservation with Chahinkapa
Zoo professionals. Meet live animal guests!

## V. A Wildcat Scavenger Hunt!

Why do a scavenger hunt you ask? It will enhance observational and problem-solving skills, and help you to work with others, you will also practice communication and teamwork. Limit 32 Students.

## W. Introduction to Robotics

This hands-on experience will introduce the student to the world of robotics and how they are used in various industries. Students will also have the opportunity to operate an industrial robot to pick up objects in their workspace. Limit 16 Students.

## X. Sensory Exploration 101

Our senses...sight, smell, taste, touch, and hearing connect our minds with the world around us. There are many situations throughout the day to provide opportunities for stimulation. You'll engage in fun, structured, hands-on activities that stimulate both sensory and motor skill development. Come and excite your senses! Limit 20 Students.

## Y. Oval Track 101

Learn what it takes to create a successful race team, from the shop to the winner's circle and everything in between. Also, get the chance to see a Dirt Track Sport Modified up close and personal. Limit 24 Students.

## Z. Team Building

I will have the class building an apparatus utilizing their instructions and using their team. Limit 20 Students.

## AA. Farm Crops and Safety

Learn how different crops are used on a daily basis.
Learn farm safety facts.

## CC. Who wants to be a Dental Assistant or Dental Hygienist

This class will include a hands-on demo of several dental office procedures that dental assistants or dental hygienists do. What does an intra-oral camera look like and how is it used? What happens when you get x-rays in a dental office? What is infection control and how important is hand washing? How can I keep my teeth strong and healthy? Limit 32 Students.

## FF. Welcome to the World of Welding <br> Welding in a virtual world. Limit 16 Students.

