



NDSU STEM KIDS 2015

Students in grades 3-5 and 6-8 are invited to join NDSU for a variety of summer kids camps focused on topics in science, technology, engineering, and math (STEM). Ignite a passion or fuel your child's passion for STEM classes by registering him/her for these hands-on learning camps.

Grades 3-5

Construction Adventures

Get your hands dirty and explore the construction process and the materials used in the industry. Students will design a house plan, select materials they would use to build their house, build models of their houses, and spend a day in the lab mixing concrete and running material tests. (Min 8/Max 13)

Girls Rockin' Robots or Boys Rockin' Robots

Ever dream about creating and controlling robots? Here is your chance. Students will use the new VEX IQ platform to build and test mobile robots with the final goal to remove objects from a contaminated buildings. (Min 10/Max 20)

STEM Explorers

Students will participate in a project-based environment where they will use a problem solving strategy to investigate STEM-related topics. They will use a 21st century approach. (Min 6/Max 18)

Go Green Kids!

Participants will learn about green energy resources and wind power systems in particular. They they will have an opportunity to build miniature wind turbines and apply science and math to determine the best possible design. Working in groups, the kids will experience a fun-filled atmosphere coupled with teamwork and learning. If your child is curious and likes hands on learning, then this camp is for them. (3-5/6-8) (Min 10/Max 20)

How is my Water?

Summer is fast approaching and with summer, we get hot. So, we spend a lot of time in water, on boats, doing water sports, swimming (lakes, rivers, pools), and fishing. Do you ever wonder what is in our precious water? Are the plants and animals around you healthy? Do you want to work with a team to discover how to help the environment and make sure your water is clean? Come to the fun! (Min 10/Max 20)

Rad Rockets

How do rockets work? Come find out by building and flying your very own rocket! It will be a blast! (Min 8/Max 16)

Gear Heads

Come build and explore engineering through basic machines and mechanisms. Using Lego Education kits, you will learn about gears, pulleys, levers, linkages, and pneumatics. You will work in teams to build simple and motorized mechanisms to demonstrate concepts. (Min 10/Max 16)

Aerospace Adventures

Students will be able to design a glider to see how far it can go. Once they have the best glider they will then test to see how much cargo they can carry with the weight attached. We will discuss which design is the best and why we feel that specific glider went farther or was able to carry more weight than the others. To end our time together students will construct their own device to rescue an animal by lifting it and bringing it to a safe place. (Min 10/Max 20)

Robot Rumble

Explore the vast world of engineering through robotics. Using the Lego Mindstorms platform, you will learn the basic concepts of design and programming while working in teams to build a robot. You will engineer a robot to perform tasks, overcome challenges, and maneuver through obstacles...culminating in an exciting competition! (Min 10/Max 16)

Grades 6-8

The Big World of Nano

Experiment with the different uses of nanotechnology, and discover its exciting properties! Take the chance to work with new, fun, and unique science methods. (Min 10/Max 16)

Clean Energy

Students will learn how to harvest and use clean energy. The camp will investigate solar energy, wind energy, and fuel cells. (Min 10/Max 16)

The Beauty of Electricity and Wireless Communication

Have you ever wondered how people are communicating using cellphones, radio, television, and internet? What are the basics concepts of electricity? What techniques are used in wireless communication? Students will design a simple electrical layout to understand the basic concept that will lead them to be great engineers/scientists. (Min 5/Max 20)

Bridge to the Future

This camp is intended to provide students an insight into gaining a better understanding of some of the tasks which engineers do for the society. An example of a bridge model will be examined. Students will have an opportunity to gain clearer perspectives by means of fruitful interactions. (Min 10/Max 20)

Computing and Games

Discover the technology world of computing, problem solving, and games. We will create interactive stories, a web page, games, music and art using Scratch, RPG maker, and other software. (Min 10/Max 20)

Middle Schoolers Rockin' Robots

Ever dream about creating and controlling robots? Here is your chance. Students will use the new VEX IQ platform to build and test mobile robots with the final go to remove objects from a contaminated buildings. (Min 10/Max 20)

Mystery of Water

Have you ever observed small insects moving across the surface of a pond without sinking? How about filling a glass of water all the way to the top and rising above the rim? Starting with fundamentals of surface tension, this workshop will lead you to discover the mystery of water, and develop fun ways to control this mystery element! (Min 6/Max 12)

Crime Scene Science

A week full of activities spans the different scientific fields including experiments in fingerprint and bite mark identification, studying splatter patterns, powder analysis, chromatography and even DNA extraction. (Min 10/Max 25)