

Discovering...

Middle School

# Science of Technology Camp



In the Science of Technology Camp, students will develop an understanding of "how things work" through hands-on activities that demonstrate the principles of simple and motorized machines. Campers will work in teams using K'Nex building systems and the LEGO Mindstorms (RCX) Robotics Invention System. In robotic design, the campers will find the process to be interdisciplinary, involving engineering, physics, computer science, and artificial intelligence. Important team skills, such as project management, communication skills, and creative problem solving are also put into play. This program is aimed at stimulating student interest in engineering and science careers. No prior robotics or other engineering skills are required. Students should possess basic motor skills to work with labs and test equipment and sensors.

## WHO SHOULD ATTEND THIS CAMP?

This camp is for students entering 5th-8th grade this fall. Students who enjoy hands-on activities and wonder how things are put together will have a great camp experience.

**JULY 30–AUGUST 3**

**FEE: \$225**

**Camp runs Monday–Friday, 8:30 a.m.–4:00 p.m.**

## CAMP OVERVIEW

### Monday–July 30

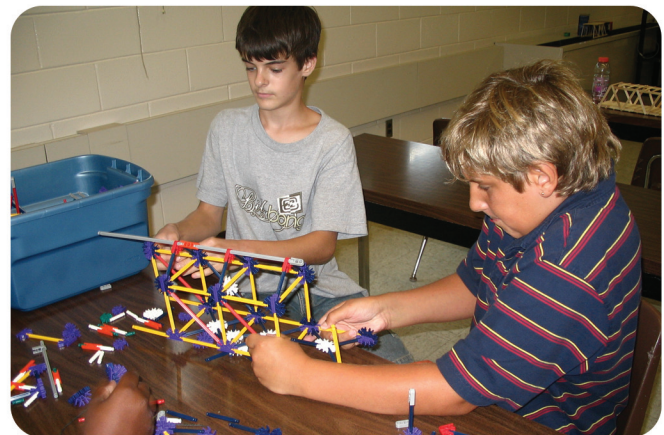
- Camp rules, bridge basics, design criteria, structural integrity, and project planning

### Tuesday–July 31

- Planning and design of systems, effective building techniques, structural design, and production systems

### Wednesday–August 1

- History and robotic basics, design criteria, LEGO robotic hardware, software application, and utilization of special functions



### Thursday–August 2

- Building and testing robots to perform special tasks

### Friday–August 3

- Contest to build and alter robots to perform special purposes, field trip to Blue Marsh Dam

**\*Camp runs from 8:30 a.m.–4:00 p.m. Campers must provide their own lunch, snacks, and drinks.**

*\*The camp activities shown are based on last year's camp and are subject to change at the instructor's discretion.*

To sign up, go to: [berks.psu.edu/summercamps](http://berks.psu.edu/summercamps)