

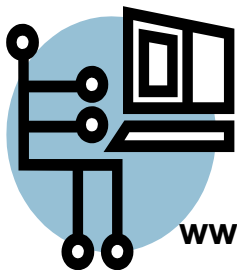


**Free**  
**Robotics,  
 CAD/Design,  
 Green Construction &  
 Energy or  
 Health Science & Safety  
 Summer Camp**

**June 13th—17th**

**9:30 A.M - 2:00 P.M.**

**For Current  
 9th & 10th Graders**



Check out our website for details and print a form or fill out and mail this form to register

**www. sun-tech.org**

(Project is being funded in part by the American Recovery and Reinvestment Act (ARRA) through the Central Pennsylvania Gold Medal Initiative.)

The focus of the CAD/Design Camp will be simulating an actual engineering/ product development department within a Fortune 500 company. Teams will develop concept sketches and preliminary designs (manual and/or created using CAD), learn basic drawing and design tools software to create a prototype of a given assignment. As an example you may be asked you to design and build a three pulley gear mechanism to turn a windmill. A discussion of engineering change orders (ECO's) will take place and what that does to the cost of the project. Students will have to problem solve, and modify designs to meet requirements.

A team building exercise will be completed along with a discussion on careers in the drafting field.

Once a design is approved by the instructor it will be drawn on the computer and transferred over to the 3-D modeling machine that will produce a three dimensional prototype of the design. Quality assurance also comes into play to make sure the parts being engineered fit together and function properly. Only two teams will be given the same project so a variety of prototypes will be designed and produced.

You will also engage in STEM (science, technology, engineering, and math) activities, learn about CareerLink and careers in the drafting/engineering field, listen to guest speakers and tour SUN Tech.

mail to:  
 SUN Tech  
 P O Box 527  
 New Berlin, PA 17855

**Free Summer Camps - June 13—17, 2011  
 Registration Deadline : June 1, 2011  
 Class Size is Limited—Register Early**

**PLEASE PRINT**

**Camp (Choose One)**

- \_\_\_\_\_ CAD/Design
- \_\_\_\_\_ Green Construction & Energy
- \_\_\_\_\_ Health Science & Safety
- \_\_\_\_\_ Robotics

**Student Information:**

Last Name: \_\_\_\_\_

First Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Daytime #: (    ) \_\_\_\_\_

Grade: (11-12 school year): \_\_\_\_\_

Home School: \_\_\_\_\_

Parent/Guardians Name: \_\_\_\_\_

Parent/Guardian Telephone #: \_\_\_\_\_

(number we can reach you in case of an emergency)

E-Mail: \_\_\_\_\_

Call 570-966-1031 Ext. 114 for additional information

Or E-mail: ckreitzer@sun-tech.org

During the **Green Construction and Energy Camp** students will construct a portable, individual greenhouse and discuss the theory of solar thermal, and the use of windows in a home and their connection to heat loss and energy conservation. Direct sunlight, northern exposure, and the R rating of different glass windows and insulations will also be demonstrated. Local green careers and green employers will be researched and discussed as well as the tests that are done to homes during energy audits.

Discussion will also take place on what an auditor is looking for in a home when they complete an inspection to help the homeowner reduce heating and electric costs.

You will also engage in STEM (science, technology, engineering, and math) activities, learn about CareerLink and careers in the green construction and energy field, listen to guest speakers and tour SUN Tech.



**REGISTER EARLY**

The focus of the **Robotics Camp** will be to learn basic terms, programming, and sound logic for assembling and designing a LEGO (snap together) Mindstorm NXT robot from a kit that will be provided to each team. Activities will build upon the completion of a Battlebot and each team will compete in a Battlebot challenge the last day of camp. Parents are invited Friday to attend a pizza lunch and watch the competition.

Bluetooth technology will be used to communicate with the Battlebot. The Mindstorm kit includes four sensors: an ultrasonic sensor, 2 touch sensors and the all-new color sensor. The color sensor has triple functionality in that it can distinguish colors and light settings, and can also function as a lamp.

You will also engage in STEM (science, technology, engineering, and math) activities. learn about CareerLink and careers in the robotics field, listen to guest speakers and tour SUN Tech.

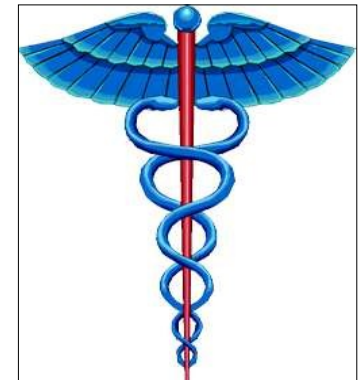


**FREE SUMMER CAMPS**

The **Health, Science and Safety Camp** will teach leadership skills, entry level skills needed in the health profession, explore career opportunities and build self-esteem through communication activities, workplace readiness skills, and activities will include: oral hygiene, personal hygiene, infection control, and chemical information MSD sheets.

Students will also do an examination of a mouth, how teeth are numbered and positioned in a mouth, what teeth are made of, what an x-ray shows the doctor and discuss different careers in the dental field. Looking at protective services, students will look at fingerprints, mud and plaster casts, discuss stories of crime scene investigations and act out a scenario to solve a crime scene.

You will also engage in STEM (science, technology, engineering, and math) activities, learn about CareerLink and careers in the health, science and safety fields, listen to guest speakers and tour SUN Tech.



**CLASS SIZE LIMITED**