

## Eligibility

STEAM Camp is open all to students entering grades 2 through 8 who are interested in exploring science, technology, engineering, art/design and mathematics. Our goal is to provide a fun, safe and enriching environment through which students can explore and learn.

## Tuition

\$250 for ONE week, 9AM – 3PM

## Registration

- Our camp has a limited number of seats. Seats will be filled on a first-come, first-served basis.
- Registration is not complete until the Spotswood BOE has received a completed application and payment in the form of a check or money order. Make checks payable to Spotswood BOE.
- Applications will be available from the Spotswood School District website starting in April 2018.
- Registration fee does not include lunch. Students may want to bring snacks as well.

## Refund Policy

No refunds will be made once camp begins. All students withdrawing before camp begins will incur a \$25 processing fee. If minimum number of enrollees is not reached, STEAM camp will be cancelled, and all money will be refunded.

## What is STEAM Camp?

STEAM stands for Science, Technology, Engineering, Art & Design and Mathematics and is a nationwide effort to close the skills gap identified by US business and industry. During camp, students will learn by participating in relevant hands-on activities and engineering challenges. Our program will also promote collaboration and teamwork.

## Benefits

- Explore STEAM related fields and gain valuable experiences.
- Experience real-life application of math, science and design principles
- Meet students who share similar interests
- Gain exposure and experience in today's top career fields
- Have fun!

## Want to know more?

Applications are available at [www.spsd.us](http://www.spsd.us).

For more information about 2018 Spotswood STEAM Camp contact:

Gary Hull, [ghull@spsd.us](mailto:ghull@spsd.us).

Martin Dempsey, [mdempsey@spsd.us](mailto:mdempsey@spsd.us)

Chris Talish, [ctalish@spsd.us](mailto:ctalish@spsd.us) or

Paige Besthoff, [pbesthoff@spsd.us](mailto:pbesthoff@spsd.us)

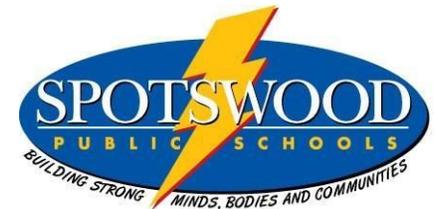


# MISSION TO MARS

## SPOTSWOOD STEAM CAMP

*a learning opportunity for grade 2 through 8 students*

**AUGUST 20-24, 2018**



## Daily Camp Program

Students will move through three different learning stations each day, with fun and interactive age appropriate activities at each.

Time	Activity
9:00-9:20 AM	Morning STEM Challenge
9:20-10:40 AM	Station 1
10:45-12:05PM	Station 2
12:05-12:35PM	Lunch
12:35-1:55 PM	Station 3
1:55-3:00PM	Afternoon STEM Activity

Students will split out by grade levels (2<sup>nd</sup>-3<sup>rd</sup>, 4<sup>th</sup>-5<sup>th</sup> and 6<sup>th</sup>-8<sup>th</sup>) and groups will be assigned to a camp counsellor, who will lead students from area to area and supervise them on breaks.

At the end of each day, we will gather for fun and interactive engineering and/or team activities and by the end of the week, students should be able to showcase their work in each area.

In addition to working at our learning stations, there will be a period of open, unstructured play at lunch-time.

## Our Camp Activities:

**Note:** These activities are tentative plans, and are subject to change based on enrollment numbers and staff availability.

## Martian Mysteries

As we push the frontiers of human exploration and settlement we will certainly need investigators and forensic scientists to solve crimes. One day, we may even need to investigate crimes on alien worlds! Our forensics program will provide an introduction to the concepts and skills necessary for crime scene investigation and crime reconstruction. Students will be asked to make careful observations, obtain precise measurements, and use the scientific method and their deductive reasoning and critical thinking skills to solve "crimes."

## Robot Rovers

Getting from point A to B on a strange world isn't always so easy! Students will develop an understanding of basic robot systems and constructing simple robots, and a variety of programming environments to control robot motions. Second and third grade students will focus on Ozobots and littleBits construction kits. Older students will utilize Lego Mindstorms kits and programming environment. Student robots will then navigate challenging environments to complete their missions.

## Mission Control Programming

For every astronaut flying a rocket there are dozens of computer scientists on the ground making sure that every aspect of the mission is working as planned. Want to help control the mission to Mars? If so, your first step is to learn to speak to computers in their language. All students will learn the foundational concepts of computer science, with an emphasis on games, mobile applications, and/or website development.

## Daily STEM and Engineering Challenges

We begin each day with a short Engineering and Design challenge and end the day with a STEM based group activity. These activities cover basic electronics, soldering, rocketry and other topics that are educational, fun and interactive.

## Our Lead Instructors

### Gary Hull

Gary Hull has taught Computer Science at Spotswood High School since 2003. He is the former president of the Central NJ Computer Science Teachers' Association (CSTA) and was one of twelve teachers selected to represent the United States at the first annual Microsoft Innovative Teachers Worldwide Forum. He is currently the co-adviser of the Spotswood High School Hackspace Club, which allows students to explore their interests in technology, programming, and electronics.

### Martin Dempsey

Martin Dempsey has worked as an Earth Science and Physics teacher in Spotswood High School since 1996, and currently serves as district Science Department Chair. He co-founded our school's Heavy Metal Robotics competition team, and is currently the advisor of the Spotswood High School Hackspace Club, which allows students to explore their interests in technology, programming and electronics.

### Chris Talish

Chris Talish has taught Forensic Science, Chemistry and Physics at Spotswood High School since 2001. He created our school's first Forensic Science course and serves as advisor to our school's TEAMS engineering competition team.

### Paige Besthoff

Paige Besthoff has been teaching computers and business in the Spotswood School District since 2005 and currently teaches computers and technology at Appleby School. She has been named a PBS Digital Innovator and is a member of the PBS Teachers' Advisory Group.