

# STEP - Science Training Encouragement Program

Promote Science, Technology, Engineering, and Mathematics (STEM)

Encourage exploration of STEM subjects and careers

Provide inspiring role models

## What is STEP?

The Science Training Encouragement Program (STEP) is a learning experience that places students at the center of discovery, challenge, and opportunity – an encouragement program that supports the increasing demand for jobs in the STEM field.

Teaching the right skills to aspiring scientists and engineers is important, but arming all students with STEM know-how is critical for the jobs of the future.

3M recognizes the importance of continuing to encourage students in the STEM fields, and what better way as to provide students with the opportunity to experience what a career in a STEM field can look like.

## Who is eligible for STEP?

Students who are:

- In their junior or senior year at one of the participating SPPS district high schools
- At least 16 years of age
- Have a 2.0 GPA or greater
- Willing to commit to the full nine month program (*The classroom portion runs from January through April. It is followed by a summer experience running from June through the end of August.*)

STEP is open to **ANY** student interested in discovering what a career in a STEM field is like, see the following link.

<http://www.iseek.org/careers/stemcareers>.

## How do I apply?

All high schools in the Saint Paul Public School District may participate in the program. Application forms are available through the school program coordinator.

## How are STEP students selected?

Students who apply are evaluated by several 3M employees based upon the written selection form, a resume, and letter of recommendation (optional).

Finalists are announced in December, they are chosen in accordance with the guidelines of the program and who will best benefit from the experience.

If selected, students will be **required** to provide specific documentation including, but not limited to, **"social security number, and proof of your status as a US citizen or as an alien with permission to work in the US"**. Additionally, students will

need to pass both a background check and a drug & alcohol screening before being accepted into the program. Accepted students will become part-time temporary employees of the Saint Paul Public School District.

Prior to final selection there is a registration process, in which a legal guardian is **required** to attend a registration event with the student.

## What is expected once selected?

If you are accepted into the STEP Program, expectations are:

- Participation in training at 3M from January through April, during the school day
- Academic standing is maintained throughout the duration of the program
- Full participation in both the training and the summer experience

## Training session – what is it like?

The training sessions are held at 3M from 1:00pm to 3:00pm on Mondays and Thursdays, during the second semester of the school year. Training sessions are led by 3M scientists, who volunteer their time to teach new concepts, lead discussions, guide research, help run experiments, and provide technical demonstrations. Transportation to and from school and the 3M campus will be provided. Busing home from the school is the student's responsibility.



## Networking Opportunities

Two 3M scientists will be assigned to every student as mentors and “coaches”. It will be the student's responsibility to initiate interaction either by telephone, through e-mail, or in person. Students can explore career paths, discuss educational requirements, and get advice on how to lay out a strategy to achieve their goals.

## The Summer Experience

Each student will interview for several positions, and every position will interview several students. The intent is to match students with available experiences following the preferences of both the students and the mentors. In June, through the last working day in August, the students participate in the summer experience. A minimum of 40 workdays are required; a workday is considered 8 hours. Each student is expected to arrange transportation to and from the 3M Campus.

## Where do I go for further information?

School representatives are available to answer any questions you may have, or contact 3M by email at [STEP@mmm.com](mailto:STEP@mmm.com).

## STEM FACTS

Nearly 28% of high school freshman declare interest in a STEM-related field. Of these students over 57% will lose interest by the time they graduate. STEM Skills are in demand; there are nearly 2.4 STEM jobs for every one unemployed person. Careers in a STEM field have an increased opportunity of having higher earnings and lower unemployment (source: U.S. Department of Commerce, Economics and Statistics Administration).

Only 33% of eighth graders are interested in STEM majors and only 6% of high school seniors will get a bachelor's degree in a STEM field (Office of Naval Research Stem to Stern, The National Academies Press).

The U.S. is ranked 27th (out of 29) for the rate of STEM bachelor's degrees awarded in developed countries - 6% of U.S. undergraduates major in engineering compared with 12% in Europe, 20% in Singapore, and 40% in China (Rising Above the Gathering Storm).

Students with bachelor's degrees in engineering had the highest average starting salary offers compared with students with degrees in other subjects (National Association of Colleges and Employers).

"The good news is that student interest in STEM is high overall, the bad news is that a sizable number of students may not be connecting the dots between their innate interests and a potential STEM-related career." (Jon Erickson, ACT president of education and career solutions.)

## STUDENT COMMENTS:

"... the STEP program (and my mentor and supervisor's speeches about how great it is to work at 3M) overall does really make me change my mind about what I want to major in and become later in life."

"Throughout the STEP Program, I learned a lot that makes me more open in the field of Science and Math."

"I knew I wanted to have a STEM career before the program, but now I know more about different kinds of careers and I know more specifically what I want to do."

"It (STEP) encouraged me to go towards the Bio side of the STEM spectrum"

## About 3M.

At 3M, we apply science in collaborative ways to improve lives daily. With over \$30 billion in sales, our 90,000 employees connect with customers all around the world. Learn more about 3M's creative solutions to the world's problems at [www.3M.com](http://www.3M.com) or on Twitter @3M or @3MNews.

As a science-based company that has thrived for over 115 years, we understand the importance of investing in the next generation of scientists and innovators. That's why we're committed to generating interest and increasing achievement in STEM especially among underrepresented populations – and our student mentoring programs are one of the ways we do this.

## INTERESTED IN GETTING INVOLVED?

### Participate as a Student

Are you or do you know a St. Paul High school student who has expressed an interest in STEM? Speak with your school coordinator to find out how to connect the dots and get further information on how to pursue a STEM career.

### Volunteer as an Instructor

Spend 2 hours out of your schedule to connect students to the science and applications behind your research, product line, or business. Offer a tour of your laboratory, giving them exposure to your world.

### Mentor a Future Scientist or Engineer

Meet with students individually – tell them about your job, and how you got there. Share with them your experiences. Discuss their aspirations – providing them advice, support, and encouragement for their journey.

### Launch a STEM Career

For 40+ days in the summer, students will be available to learn and work in your lab on a project for you. They may take a little more guidance to get them started, but many of the mentors have been surprised by how well the students performed!