### SCIENCE TECHNOLOGY ENGINEERING MATH

My Lab number is:
My Chartered Organization is:
My Lab Manager's name is:
My Lab Manager's phone number is:
My Lab Manager's email is:
My Assoc. Lab Manager's name is:
My Assoc. Manager's phone number is:
My Assoc. Manager's email is:
My lab meets on (day):
My lab meets at (time & place):

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# STEM Scouts New Parent's Orientation Guide



### **STEM Scouts in Action!**



Above: Lab #2002, the first middle school unit in the tri-state area meets to learn the Scout Law *Trustworthy* and about Computer Aided Design (CAD).



Below: STEM Scouts use mathematics to extrapolate the length of homemade bungee cords. The goal is to provide the biggest thrill to their "dummy dolls" without hitting the ground.



# Why Join STEM Scouts?

- STEM Scouts is a national pilot program focused on fun ways for girls and boys to learn more about science, technology, engineering and mathematics (STEM)
  LEARN BY DOING: Use hands-on experiments like the ones you do in the STEM Lab to invent new technologies and ideas
- DEVELOP SKILLS: Be creative, develop your leadership, problem-solving, teamwork and communications skills
- BUILD A CAREER: Pave the way for an exciting future. STEM jobs are projected to grow 17% by 2018, and STEM salaries average 26% more than salaries for non-STEM jobs
- PREPARE FOR THE FUTURE: Increase your chances for college scholarships and develop the skills to change people's lives

But we know that girls and boys do not join STEM Scout just to get their character built. They join because it is fun.



### STEM Scouts in Action!



STEM Scout Lab #1005 learns the Scout Law *Cheerful* while having fun extracting DNA from strawberries.

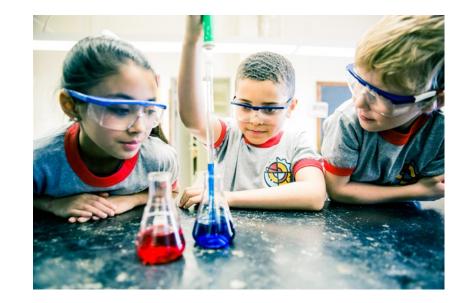
At the end of the experiment, Scouts take their DNA home!

# 12 Participating Council in U.S.

- Capitol Area Council (Austin, Texas)
- Catalina Council (Tucson, Ariz.)
- Circle Ten Council (Dallas)
- Connecticut Rivers Council (East Hartford, Conn.)
- Crossroads of America Council (Indianapolis)
- Denver Area Council
- Garden State Council (Westampton Township, N.J.)
- Greater St. Louis Area Council
- Middle Tennessee Council (Nashville, Tenn.)
- Pathway to Adventure Council (Chicago)
- Sam Houston Area Council (Houston)
- Samoset Council (Weston, Wis.)



STEM Scouts learn about programming and teamwork. Scouts challenge each other to program a rover robot through an obstacle course.



### Sign up your Youth Today!

### How Does STEM Scouts Work?

Through weekly meetings and four-to-six week modules that cover a variety of disciplines, STEM Scouts is designed to be fast paced, thought provoking, and fun.

- As career prospects within these fields continue to grow, STEM scout modules will aim to demonstrate to youth the exciting opportunities that a career in STEM can provide. These activities are tailored to a variety of disciplines.
- The program helps youth prepare for the future with several unique experiences such as interactions with STEM professionals and the opportunity to publish their work in a peer-reviewed journal, all increasing their chances for college scholarships and program admissions.
- STEM Scouts will see how real people in real companies use hands-on experiments like the ones they'll do in the STEM lab to invent new technologies, machines, and medicines, and to develop ideas that change lives.

# Lab Meetings

5-15 boys and girls2 or more adult volunteer leaders per Lab

Units grouped by elementary, middle and high school ages Weekly meetings and monthly field trips 4-6 week learning modules

# Starting a Stem Lab Check List

#### **STEP ONE:**

#### **Become a STEM Chartered Partner Organization**

Register and fill out the new Lab application

Complete Chartered Partner Agreement form

Pay \$40 Charter Fee (pays for insurance)

#### **STEP TWO:**

#### **Build the Team**

Plan and organize the program with C.O.R.

Select and recruit quality key leaders

Chartered Organization Representative (C.O.R.)

Lab Manager

Associate Lab Manager

Schedule Training for leaders by STEM Executive

Youth Protection Training (YPT) Yearly

requirement

Leader Specific Training

Schedule date with STEM Executive to review and distribute lab materials

# Laboratories

#### Elementary School (3<sup>rd</sup>-5<sup>th</sup> Grades) Junior Laboratory

Elementary students learn to be creative doing experiments in weekly Lab meetings, take field trips and work with people in STEM careers. They try new things as they work with others, lead teams and communicate results.

4 week modules 7 modules

#### Middle School (6<sup>th</sup>-8<sup>th</sup> Grades) Technology Laboratory

Middle school students dive deeper into STEM topics. They learn to be creative, work with others and try new things, all while taking field trips and working with people in STEM careers.

6 week modules 6 programs

#### High School (9<sup>th</sup>-12<sup>th</sup> Grades) Research Laboratory

High school students take their study of STEM topics to a higher level as they learn through hands-on experiments, field trips and independent study.

6 week modules 6 programs **STEP Professional** – person with specific knowledge in one or more of the STEM related disciplines. This person shares knowledge of his/her career experiences, is willing to host a visit to career facility and overall enhances the learning experience for scouts.

**Parent Helpers -** Each year, the lab will undertake several short-term projects. Parents and other volunteers are needed for activities such as fund-raisers (Popcorn Sale, Discount Cards), Scouting for Food, Friends of Scouting, and STEM Day Camp. These jobs are short duration and still enable all families to assist with important lab responsibilities.



# Lab Activities

### **National Pi Day**

Pi day is an unofficial holiday held to celebrate the mathematical constant Pi. March 14 is also the birthday of Albert Einstein.

### **Day Camps**

A fun way for your boys and girls to get involved in STEM activities for an entire week. In a summer camp program setting.

### **Summer Camps**

More information to follow

### **Service Projects**

Labs may participate in food drives, conservation projects, river clean up trips, or other community activities.

### **Field Trips and Special Outings**

Great ways to learn more about the people and places in your community. Ex. science museums, planetariums, parks, zoo, STEM businesses, and factory tours.

# How Can You Help?

# Your role as a parent is the secret of success to the STEM Scouts program!

The STEM Scout program is a volunteer led program. We're looking for volunteers, both with and without experience in STEM fields. Lab managers and other volunteers don't need all the answers, just an enthusiasm for working with curious young minds. We'll provide all the training.

Trained leaders and STEP (short-term, experienced professional) volunteers guide students through hands-on experiments and activities during each four-to-six week learning module. Middle and high school labs require that at least one leader have a STEM background.

The most important help that you, as a parent, can give your girl or boy is to work with her or him on STEM Scouts activities. Their learning journal is full of age-appropriate activities that you will enjoy doing together.

**Lab Manager –** Helps plan and carry out the labs. Guides and supports the Associate Lab Managers. Works through the Stem Scouts website to create profiles and order module materials.

**Associate Lab Manager** – Participate in lab meetings, field trips, and outings. Be ready to fill in for the Lab Manager if necessary.

**STEM Scouts Committee -** Lead the program from a "behind the scenes" perspective and a more macro level. Find a position that matches your personality in fundraising, new leader training, recruiting, awards and recognitions, program development and others.

# Lab Youth Positions

#### **Principal Investigator (P.I.)**

Leader for the module.

### Co-P.I.

Assists the P.I.'s and assumes leadership Responsibilities in the P.I.'s absence.

### **Project Manager**

Responsible for materials, budget, schedules (with assistance from Lab Manager).

#### Technicians

All youth are technicians and preform the Hands-on experiment.

# How Much Does STEM Scouts Cost?

### YOUTH:

\$200 Youth registration fee covers:

\$50 STEM Scouts Registration

\$150 Program supply cost includes safety glasses and core module supplies.

\$150 reduced rate-contains half of curriculum

### ADULTS:

\$50 Adult registration fee covers:

National adult STEM Scouts registration (includes) national criminal background check, portal, and online curriculum.

### Additional Costs not included in registration:

Lab Coat \$29.99 youth; \$39.99 adult T-shirt additional \$9.99 Adult Polo Shirt \$39.99

# Lab Achievements Awards

Participation and achievement awards can be earned. Youth can strive towards earning pins and digital badges to show off their accomplishments.

# **Individual Learning Modules**

If your youth has a specific interest in learning more about a topic this is the way to go.

## Paying for the Fun is Easy with Product Sales

Scouting conducts a Fall Popcorn Sale. Entire labs or even individual Scouts may sell. Scouts can earn fabulous free prizes, post high school scholarships and other great incentives!

Discount /CAMP card sales can also be made available. These offer discounts and coupons for local businesses.

