

STEM SCOUTS INFORMATION PACKET



**STEM
SCOUTS®**
SCIENCE
TECHNOLOGY
ENGINEERING
MATH

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INTRODUCTION

OBJECTIVES

- Provide an overview of the Boy Scouts of America and the STEM Scout program
- Explain the requirements of starting a STEM Scouts lab
- Provide information on how to recruit youth and adult volunteers

Q & A

What is STEM Scouts?

STEM Scouts is a new pilot program from the Boy Scouts of America. The program, initially launched in several communities in East Tennessee during the summer of 2014, focused on exploring the fun and exciting opportunities in science, technology, engineering, and math (STEM). This encourages the natural curiosity of members and their sense of wonder about STEM as a potential career field.

Who can join STEM Scouts?

STEM Scouts is open to boys and girls in three divisions: elementary school, grades 3-5; middle school, grades 6-8; and high school, grades 9-12. Opening the program to girls at a young age provides a great opportunity for coed collaboration and gives all youth a chance to become STEM experts.

What is the cost?

- *Youth:* \$200/child for year registration, eye protection, and core activity materials.
- *Adult Lab Leader:* \$50/year for registration, eye protection, criminal background check, and online leader guides. Applies only to those who wish to conduct the lab meetings
- *Chartered Organization:* \$40/year for liability insurance per STEM Lab. Applies only to organizations who wish to sponsor a lab unit.

How is the program structured?

STEM Scouts will work closely with volunteers from the community and STEM professionals to conduct experiments that lead to new inventions, technologies, machines, and develop ideas that change lives. STEM Scouts meet once a week for 90 minutes for 30-33 weeks. The 33 weeks are divided into four- to six-week modules that cover a variety of disciplines. Because STEM Scouts is an independent program of the BSA, youth participants will not earn merit badges, but instead will receive participation and achievement awards on the portal AKA electronic badges.

How can an individual become a STEM Scout?

Individuals can join at any point in the year by either starting their own lab or joining a preexisting lab in their area. Individuals can attend joining nights throughout the year or go online to www.STEMScouts.org/hartford to find a lab nearest them. In order to complete an application, Individuals must create a portal account and pay the registration fee online. Once the application is complete, they can message the lab leader through the portal and attend the following meeting.

Where can I find additional information?

For more information, visit STEMScouts.org.

HOW TO START A STEM LAB

A STEM Scouts Lab consists of a **chartering organization**, **chartering organization representative (optional)**, a minimum of five **youth** in the same age group, and at least two trained **adult leaders** for every 15 youth. Labs will meet weekly at a regular time and location for 90 minutes. Volunteers who are interested in starting a lab can work with the STEM Executive to secure each component as needed. Each component will most likely be secured at different points in the process. However, it is recommended that a chartered organization, chartered organization representative, lab leaders, and the meeting location are secured prior to recruiting youth.

CHARTERING ORGANIZATION & REPRESENTATIVE

A chartered organization can be a business, church, PTO, community foundation, etc. The purpose of the chartered organization is to support and/or sponsor a STEM Scout Lab. Chartered organizations do not have to sponsor the Adult and Youth registration fees for the Lab, but they must be able to sponsor the \$40 Liability Insurance for each lab they choose to represent. The Organization can choose to also select a member to be the chartering organization representative. This person will become the direct contact between the Lab and the chartered organization. If the chartered organization sponsors more than one Lab, one chartered organization representative can serve them all.

The chartered organization representative's responsibilities:

- Is at least 21 years old, is a member of the chartered organization, and is not the Lab Manager or Associate Lab Manager.
- Registered as an adult leader in STEM Scouts.
- Complete the New Unit Application & Memorandum of understanding
- Help select the right leadership for the unit.
- Serve as liaison between the labs and the chartered organization.
- Promote the recruiting of new members and units.
- Approve volunteers in the portal
- Help with the charter renewal.
- Utilize council help and promote the use of council personnel and materials.

YOUTH

Each Lab must consist of a minimum of five youth that falls into the same age group. The age requirements are elementary: 8-11 years old/3-5 grade, middle: 11-14 years old/6-8 grade and high school: 14-18 years old/9-12 grade. See table of contents to learn more about *recruitment*.

ADULT LAB LEADERS

Each Lab must consist of a minimum of two coed adults. The structure consists of one Lab Manager and one Associate Lab Manager. However, it is highly recommended that a Lab as three registered Adult Leaders in case someone cannot make it. It is important to note that there must be two adults present at a meeting at all times. However, as long as there is one registered Adult Leader the other adult does not have to be registered. See table of contents to learn more about *recruitment*.

Lab Manager

Everything that the Lab Manager does is aimed at helping the individual youth by fulfilling the mission of STEM Scouts.

The Lab Manager's responsibilities are to:

- Is at least 21 years old and is registered as an adult leader in STEM Scouts & be current with Youth Protection training.
- Know and use the available literature, which include the leaders' guides.
- See that the Lab program, leaders, and STEM Scouts positively reflect the interests and objectives of the chartered organization and STEM Scouts.
- Maintain good relationships and communication with parents and guardians.
- Work as a team with all the Lab Managers and Associate Lab Managers to cultivate, educate, and motivate all leaders and parents or guardians in STEM Scouting.
- Receive shipping supplies ensure the lab has what they need to execute the meeting

Associate Lab Manager

The Lab Manager has a big role. Having Associate Lab Managers allows him or her to share responsibilities. Every lab should have at least one Associate Lab Managers.

An Associate Lab Manager's qualifications & responsibilities (as designated by the Lab Manager) are to:

- Is at least 18 years old and is registered as an adult leader in STEM Scouts & be current with Youth Protection training.
- Help the Lab Manager as needed. Be ready to fill in for the Lab Manager, if necessary.
- Participate in Lab meetings, field trips, and outings.
- Develop and promote an ongoing plan for recruiting new youth.
- Support the policies of STEM Scouts.

STEP Volunteer

A Short Term Experienced Professional who helps with one or more weekly Lab activities (often a module) related to their field of expertise; helps with an outing; and/or hosts STEM Scouts to visit their facilities.

The STEP volunteer's responsibilities are to:

- An adult STEM professional who volunteers at the request of the Lab Manager or an Associate Lab Manager
- Serve as a STEM role model for the STEM Scouts.
- Use their particular expertise to bring better understanding to a STEM activity.
- Be certain that a registered adult accompanies at all times where they could be around STEM Scouts.

FINDING A LOCATION

The Lab leaders will work with the charter organization and the STEM Executive to find a location to host the STEM lab. Local Schools are the preferred host facility but other suggestions are local community buildings, churches, colleges, etc. When choosing a location, use the following requirements below. If you choose to work with a school, other responsibilities are listed to help clarify expectations.

HOSTING REQUIREMENTS

There is no cost to the local school to participate in the program. The STEM Scouts Chartering Organization pays to charter the lab and for annual liability insurance. The Chartering Organization may also pay Adult Leader registration fees and/or Youth participation fees.

Preferred lab Facilities:

- Provide WiFi internet access
- Age group appropriate height lab-style tables with a surface that can be easily cleaned.
- In-room sink to provide water for experiments and cleanup.
- ABC type fire extinguisher
- (optional) first aid kit
- (optional) eye wash station for safety (The labs will have individual eye wash bottles available to them)
- Internet access to get to video and simulation sites from STEM Scouts supplied laptop/tablet computers
- Trash cans & disposal (there are no hazardous wastes involved in the labs)

School Responsibilities:

- Provide access to the designated Lab room either after school or in the evening, depending on the Lab schedule.
- Provide computers & Projector (optional)
- Provide STEM Scouts access to classes for recruiting youth to the program
- Provide a meeting place for an annual sign up night for parents & students.
- Promote the STEM Scouts program within the school

STEM Scouts Responsibilities:

- Recruit & sign up Chartering Organizations
- Recruit, sign up and train all Adult Leaders. All Adult Leaders will have completed a background check, be trained annually in Youth Protection, and trained in their position as a Lab Leader.
- Recruit and signup Youth participants
- Provide training and support to the Lab Units to ensure they can successfully conduct the program.
- Provide all tools and materials needed for the Labs, with the exception of perishable items the Labs purchase on their own.
- Provide all Lab Modules, Leaders Guides and Lab notebooks materials to the Lab.

RECRUITMENT

Recruitment is an ongoing cycle that occurs throughout the year. It is one of the most fundamental components of not only starting a STEM Scout Lab but maintaining membership throughout the years to come. Recruiting events can be used to recruit youth, adult volunteers, and chartering organizations.

IMPORTANT NOTE: Recruitment can be executed by either the STEM Executive, volunteers from the Lab Units, and/or the chartering organization. However, in order to be more successful, it is HIGHLY recommended that all three components work together. These responsibilities can be discussed and divided up at the beginning of the partnership.

JOINING NIGHTS

Ideally each Lab Unit should hold at least two joining nights per year – but it is encouraged that they should hold additional ones. In short, a joining night is a one day event that last for 1-2 hours. The purpose of a joining night is to promote STEM Scouts and recruit leaders and youth. Ideally you would want to plan one joining night in the spring and one in the Fall.

In short, Lab Leaders, the STEM Executive, and the chartering organization sets a date and a location. Once that is decided, they market the joining night by handing out flyers at schools, going to events, etc. At the joining night, the Lab Leaders explain the program and encourage the parents to sign their children up for their lab. However, in order to get the MOST membership out of your event it is suggested that you already have three leaders, a time, a place to meet, and a chartering organization secured before the joining night. This way parents know exactly when the lab will start, the place, who the Leaders are, etc. However, if a lab is missing some of these components, this event can be a great opportunity to complete the Lab if need be.

The Planning

- **Contact your STEM Executive and ask them to create a provisional lab for you unit so that parents can register their child online at the joining night**
- Work with the Lab Leaders, STEM Executive, Chartered Organization to set a date for the joining night (best in August- mid-September) 45 to 60 days in advance.
- Select a location and check for community and school conflicts with the selected date.
- Put information about the program on the flyer, the date of the joining night, and get your flier approved by the Board of Education
- Deliver fliers to the school 2-3 days before the joining night and ensure that they are delivered on-time to classes.
- Provide a pdf version of the flier to the PTA or other groups who can email it to school parents.
- Help to set-up “School Talks” to promote the joining night if the school allows them. A school talk is when you go in to a school during the lunch hour/recess to talk to the kids about the program/do a fun experiment.
- Check with custodians to make sure school is unlocked and any needed school items are available.
- During the joining, you will most likely want to separate the youth and adults. Create an activity that the youth can participate in while you’re talking to the parents-you can request the mobile lab to be the

activity for the youth. Plan a gathering time activity for the adults or have a handout (anything beats staring at the wall).

- Market the event 10 to 14 days in advance. See table of contents for *Marketing & Materials*

The Meeting

- The goal at the end of the meeting is to have a parent register their child to your lab.
- Set up 3-4 computers or tablets for registration. You can request computers from your STEM Executive or you can bring your own.
- Have the adults sign in on a roster as they are arriving.
- You can request a PowerPoint presentation from your STEM Executive or you can create your own. Make sure the location has a projector.
- Assign roles to each volunteer; ie: who's presenting, running the youth activity, helping with registration, etc.

The Follow Up

- Use the roster from the sign-in as a follow-up list to contact.
- Work with your STEM executive to complete the registration of new youth and adults in a timely manner.

MARKETING

Website:

- The Connecticut Rivers Council's website is www.ctrivers.org. The council's website contains a library of topics that help recruit for all of our programs. Since we are a new program you will not find STEM Scout specific material here. However the process is very similar. Feel free to go to the council's page and look through the resources that are there.
- The STEM Scouts website is www.stemscouts.org/hartford. You can notify your STEM Executive and they can use the website to advertise events and joining nights. This website is also used at the joining night for parents to register their child to a specific lab.

Social Media

- Labs can work with the STEM Executive to use the National social media sources to promote their lab and advertise events.

Membership Monday:

- Each week, we publish an email newsletter, "Membership Monday." It covers a variety of subjects pertaining to increasing membership on both the council and unit levels. It covers recruitment and retention campaigns, marketing strategies, relationship development, new units, school access strategies, and other best practices.

Registering joining events:

- Unlike traditional scouting, a parent cannot register to a STEM Scouts joining night online. However, they can go to the STEM Scouts website and inquire about or attend a joining night that is posted.
- If the volunteers of a lab chooses, the STEM Executive can create a sign up code that parents can use at the meeting, to record how many parents attended.

Requesting flyers and other materials

- This will include the necessary information for the flyer. In addition, units will be able to request flyers, yard signs, posters, stickers, and other promotional materials. Units may create their own flyers, or ask that flyers be created for them. Every effort should be made to have the local unit be in charge of distributing their own promotional materials to schools, churches, bulletin boards, and other locations.
- Units should request materials no less than 3 weeks prior to the joining event. The reason for the timing is because it takes people 5-7 times of seeing something before they have seen the message. Also, the council professional staff can assist units with the getting their info out in the community.