

Introduction to STEM for Cub and Boy Scouts



NOVA Counselor & Supernova Mentor Training

*Greater St Louis Area Council
University of Scouting*

28 Jan 2017

Ward Walker

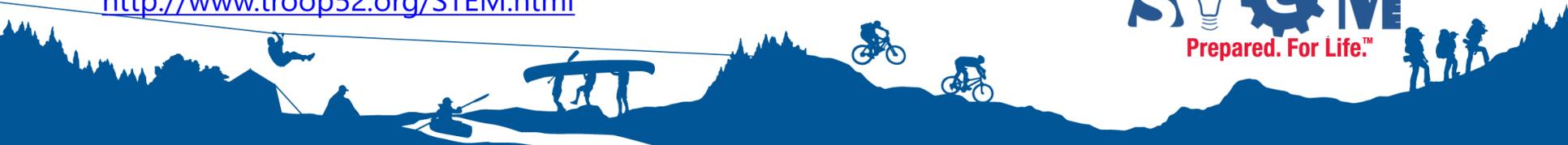
Troop/Crew 52 (SC)

ScoutMaster

Nova Counselor & Supernova Mentor

LCC STEM Committee Mbr

<http://www.troop52.org/STEM.html>





Learning Objectives



- **Introductions**
- **The Aims & Methods of Scouting**
- **Overview of the BSA Nova Program**
 - Role of Adults
- **The Nova counselor / mentor role**
 - Duties, responsibilities and requirements
- **Methods of counseling and coaching**
- **Guide a Scout through the process**





The Scouting Rubric

The Aims of Scouting

- Character Development
- Citizenship
- Personal Fitness

The Methods of Scouting

- Ideals of Scouting (Oath, Law, Motto, etc.)
- Patrol (Den, Crew) Method
- Outdoor Program
- Advancement
- Association with Adults
- Personal Growth
- Leadership Development
- Uniform

Nova
Program

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The STEM Problem



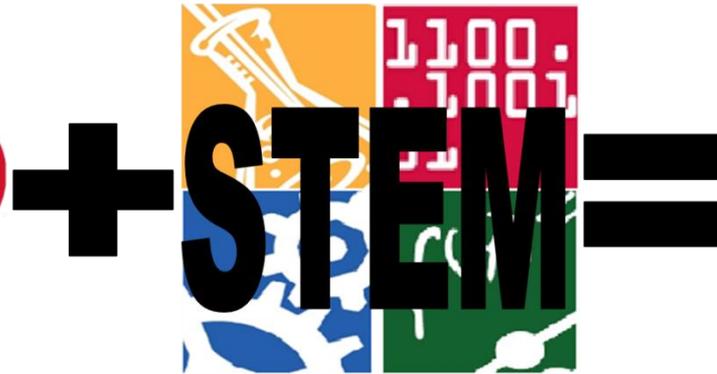
- **Our country is falling behind in Science, Technology, Engineering and Mathematics (STEM)**
 - Only 43 percent of U.S. high school graduates in 2010 were ready for college work in math and 29 percent were ready in science.
- **STEM education is an economic imperative**
 - Experts say that technological innovation accounted for almost half of U.S. economic growth over the past 50 years, and almost all of the 30 fastest-growing occupations in the next decade will require at least some background in STEM.
- **STEM literacy has a profound and growing impact on our day-to-day lives**
 - The National Science Foundation “estimates that 80% of the jobs created in the next decade will require some form of math and science skills.”

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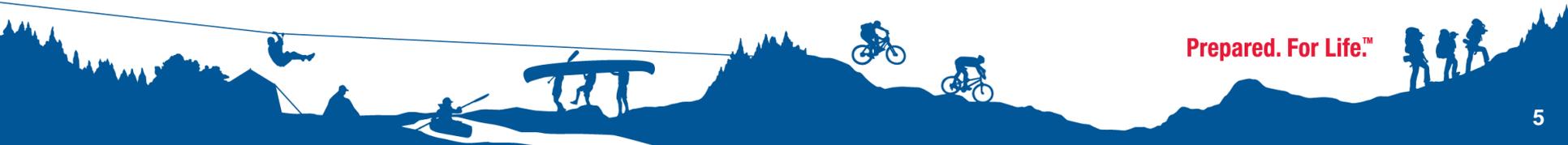
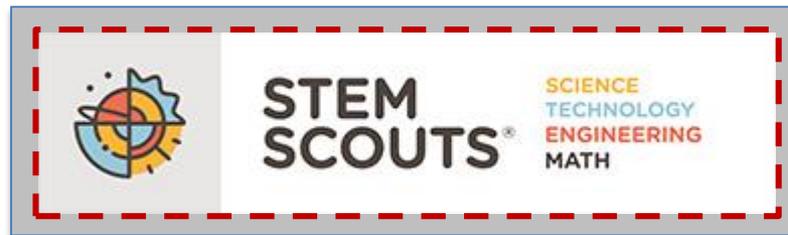




The BSA Response



**science*technology
engineering*math**



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The BSA Response



- **The BSA has partnered with EXXonMobil to increase STEM awareness in youth and offer them the opportunities to “Be Prepared for Life”**
- **BSA created the Nova and Supernova Awards Programs**
 - Youth Program, Adult Roles, Leader Support, and Awards
 - Field tested, refined, and improved in two trials (2 years)
 - Development of manuals
 - National Roll-Out in mid-July 2012

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Nova / Supernova Programs



- **Nova Program**

- Based on accomplishment of existing program activities (belt loops, merit badges, venturing activity areas)
- Extends and enhances existing program activities
- Adult counselors familiar with STEM topics guide explorations and provide advancement quality control

- **Supernova Program**

- Significant accomplishment extending program activities
- Learn some fundamentals of the topic areas
- Do Original STEM investigations and projects
- Adult mentors who are accomplished STEM practitioners guide explorations and provide advancement quality control





STEM in Scouting



- Scouting has always included Science Technology Engineering and Mathematics (STEM) topics
 - But the content is often hidden in other activities



- Scouting focuses on outdoor program
 - Not every youth wants to be a Dan Beard or Daniel Boone. Some want to be a Neil Armstrong, Bill Gates, or Albert Einstein.

The Nova / Supernova Programs highlight the STEM content in the existing program and add new activities and awards.





What Are Nova Awards?

Wrong Patch!

Wrong Patch!



	Science	Technology	Engineering	Mathematics
Cub Scouts, Webelos	Science Everywhere	Tech Talk	Swing!	1-2-3 Go!
Boy Scouts, Varsity	Shoot!	Start Your Engines	Whoosh!	Designed to Crunch
Venturing	Launch!	Power Up	Hang On!	Numbers Don't Lie

Nova Award patches are color coded by program: Blue for Cub Scouts, Red for Boy Scouts, Green for Venture Crew [coming soon]. Nova patches and pins are available from your local Scout Shop; check with the unit advancement chair. The first award is the patch; the next three awards are pins that affix to the E / S / W points.

...and MORE on the Way!

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Supernova Awards



Dr. Sally Ride
Bronze medal



Wright Brothers
Silver medal
(Must be a registered
Venturer)



Dr. Albert Einstein
Gold medal
(Must be a registered
Venturer)

Venturing

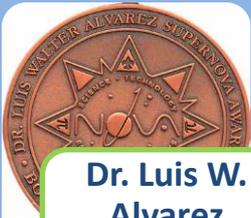


**Dr. Bernard
Harris**
Bronze medal

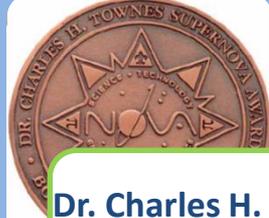


**Thomas Alva
Edison**
Silver medal

Boy Scouts



**Dr. Luis W.
Alvarez**
Wolf/Bear
Cub Scout
Bronze medal



**Dr. Charles H.
Townes**
Webelos Scout
Bronze medal

Cub Scouts





Nova / Supernova Format



- **Familiarization**
- **Exploration**
- **Relevance**

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BSA STEM Adult Roles



- **Unit Cyber Chip Facilitator**
- **Unit STEM Coordinator**
- **Nova Counselor**
- **Supernova Mentor**
- **STEM Nova Program member/chair**
 - District, Council and National levels
- **STEM Camp staff**
 - Summer camp, camporees, Jamboree, etc
- **Supporter / promoter / financial sponsor**





Unit Cyber Chip Facilitator



- A current Cyber Chip is required for some Boy Scout Rank Advancement, and on any Merit Badge / etc that will require use of the Internet
- It is helpful for a unit adult to organize & document annual Cyber Chip training
 - Whenever possible, have the Scouts conduct the training
- **Be prepared with cards & patches!**
 - Cyber Chip doesn't use BSA standard coloring: Boy Scouts are **Green** here, not **Red**!



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cyberCHIP

THIS IS TO CERTIFY THAT THE BEARER

Has read the Internet safety rules at www.scouting.org/cyberchip.

He knows how to be responsible online and what to do if he discovers unsafe Internet practices. He accepts this responsibility and is hereby granted Cyber Rights.

COUNCILSTAFF



BOY SCOUTS OF AMERICA



INTERNET SAFETY PLEDGE

- 1 I will tell my trusted adult if anything makes me feel sad, scared, confused, or uncomfortable.
- 2 I will ask my trusted adult before posting photos or sharing information like my name, address, current location, or phone number.
- 3 I won't meet face-to-face with anyone I meet in the digital world.
- 4 I will respect the online property of others.
- 5 I will always use good "netiquette" and not be rude or mean online.

SCOUT'S SIGNATURE

DATE

RECHARGE



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LEVEL II CYBER CHIP CARD

cyberCHIP

THIS IS TO CERTIFY THAT THE BEARER

Has read the Internet safety rules at www.scouting.org/cyberchip.

He knows how to be responsible online and what to do if he discovers unsafe Internet practices. He accepts this responsibility and is hereby granted Cyber Rights.

UNIT LEADER



BOY SCOUTS OF AMERICA



INTERNET SAFETY PLEDGE

- 1 I will think before I post.
- 2 I will respect other people online.
- 3 I will respect digital media ownership.
- 4 I won't meet face-to-face with anyone I meet in the digital world unless I have my parent's permission.
- 5 I will protect myself online.

SCOUT'S SIGNATURE

DATE

RECHARGE



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E Explain

D Demonstrate

G Guide

E Enable

Grades 4 – 5 (“First Year” Scouts)	Grades 6 – 8 (“Middle School” Scouts)	Grades 9 – 12 (“High School” Scouts)
1. Read, commit to, and sign the Level I Internet Safety Pledge. (BSA Cyber Chip blue card)	1. Read and sign the Level II Internet Safety Pledge from NetSmartz. (BSA Cyber Chip green card)	1. Read and sign the Level II Internet Safety Pledge. (BSA Cyber Chip green card)
	2. Write and sign a personalized contract with your parent or guardian that outlines rules for using the computer and mobile devices, including what you can download, what you can post, and consequences for inappropriate use.	2. Write and sign a personalized contract with your parent or guardian that outlines rules for using the computer and mobile devices, including what you can download, what you can post, and consequences for inappropriate use.
		3. Discuss with your parents the benefits and potential dangers teenagers might experience when using social media. Give examples of each.
2. Watch the video “The Password Rap” and another video of your choosing. (NetSmartz.org/scouting)	3. Watch the video “Friend or Fake,” along with two additional videos of your choosing, to see how friends can help each other to stay safe online. (www.netsmartz.org/scouting)	4. Watch three “Real-Life Story” videos to learn the impact on teens. (www.netsmartz.org/scouting)
3. As an individual or with your den, use the Teachable Recipes to demonstrate Internet safety rules to your den leader, den, or pack. (NetSmartz.org/scouting) *** REQUIRES PREP / SUPPLIES ***	4. As an individual or with your patrol, use the EDGE method and mini lessons to teach Internet safety rules, behavior, and “netiquette” to your troop or another patrol. You are encouraged to use any additional material and information you have researched. Each member of the patrol must have a role and present part of the lesson. (www.netsmartz.org/scouting)	5. As an individual or patrol, use the EDGE method and the Student Project Kit to teach Internet safety rules, behavior, and “netiquette” to your troop or another patrol. You are encouraged to use any additional material and information you have researched. Each member of the patrol must have a role and present part of the lesson. (www.netsmartz.org/scouting)
4. Discuss with your unit leader the acceptable standards and practices for using allowed electronic devices, such as phones and games, at your meetings and other Scouting events.	5. Discuss with your unit leader the acceptable standards and practices for using allowed electronic devices, such as phones and games, at your meetings and other Scouting events.	6. Discuss with your unit leader the acceptable standards and practices for using allowed electronic devices such as phones and games at your meetings and other Scouting events.



Unit STEM Coordinator



- **Unit Contact person for all things STEM related**
- **Trained at a STEM Counselor / Mentor course 😊**
 - Does not need to be a STEM Supernova Mentor
- **Promote the program to scouts and parents**
- **Help scouts with ideas on how they can earn the Nova and Supernova awards**
- **Work with leaders to add fun STEM activities to meetings and outings**
- **Work with the advancement chairperson to ensure Nova Awards are recorded and presented**





What is a Counselor / Mentor?



- Nova Counselors

- Adults with little to some knowledge in STEM topics
 - Need not be professionals or experts
 - Willing to research and study to be ready to guide participants
- Guide youth participants in research and experiences
- Maintain quality and safety in Program

- Supernova Mentors

- Adults with expertise in STEM topics
 - Professional-level engineers, scientists, educators and hobbyists who use STEM skills often
- Guide youth in significant accomplishments in STEM topics
- Maintain quality and safety





Who Can Be a Nova Counselor?



- **Have you ever played baseball, golf, football, bowling, archery, etc.?**
 - You understand motion of objects
- **Have you ever cooked, built things, worked in the garden, ran a race, did construction, etc.?**
 - You know how to measure things and make calculations
- **Have you ever gone fishing, dug a hole, rode a bike, hit a baseball, fixed a car or bike, etc.?**
 - You understand simple machines
- **Have you ever walked, drove a car, sailed a boat, or enjoyed AC?**
 - You understand energy production and use
- **Have you ever read a book or researched on the internet?**
 - You understand how to prepare to help the participants

Anyone who understands the material and can guide learning can be a Nova Counselor

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Who Can Be a Supernova Mentor?



- **Accomplished and knowledgeable in STEM**
 - Engineers, Scientists, Accountants, Software Engineers, HAM Radio experts, Educators, Contracts Experts, Doctors, Meteorologists
- **Able to guide youth participants to significant accomplishments in STEM topics**
 - Provide guidance and experiences, but not overt teaching
 - Support explorations of STEM ideas and projects in depth
 - May take many months to accomplish Supernova activities
- **Do NOT need to have a specific STEM background**
 - Supernova activities involve science applicable to all STEM fields
 - Possibly at the Einstein Supernova level – may need an expert in a specific field

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Counselor / Mentor Role in Nova Activities



- **Be a teacher and coach**
 - Help participant develop questions, interests, research ideas and answers
 - Guide participant in project setup and execution
 - Safety and resource management
 - Data collection and analysis
 - Reporting results and extracting meaning of results
- **Inspire discussion of project activity and help them understand conclusions**
- **Encourage completion of activities**
 - Verify requirements for awards are met
 - Ensure consistency across all participants over time
- **Verify safety and youth protection**





Counselor / Mentor Requirements



Nova Counselors	Supernova Mentors
Must be age 21 or older (registered under the Nova Awards counselor position code 58 . This is a non-unit position and requires no fee)	Must be age 21 or older and registered under the Nova Awards counselor position code 52 . This is a non-unit position and requires no fee
Youth Protection Trained	Youth Protection Trained
Training would be helpful	Nova Counselor/Mentor Trained
Can be a parent or scout leader	NOT the parent or Unit Leader of your participant (unless leading more than your own child)
Able to guide participant activities	Able to guide participant activities over many months
Knowledgeable in STEM topics (is able to research topics)	Expert in STEM topics and guiding students
	Approved by the Council Nova Committee (Supernova Mentor Application)



How to Counsel – You Can Do It !



1. Get the Nova Award handbook and review it.

Check out the section in the back for the Nova Counselors and Supernova Mentors that explains some of the concepts.

2. When a Scout selects you as his or her Counselor/Mentor, arrange for the first meeting (public place).

Follow Youth Protection guidelines.

3. At the first meeting or prior, determine which Nova/Supernova Award the Scout has selected (which Supernova activities) and discuss the scouts plan to complete the award. Verify the Scout has permission of the unit leader to work on this award.

- It is helpful to have a “card”/worksheet to mark completed requirements. Review the requirements with the Scout. Work out a schedule for working on the award. Decide when the next meeting will be.





Nova Sign-off cards



_____ Nova Award Application

This is to certify that (name) _____

in (circle) Pack/Troop/Crew # _____ has completed the above-named Nova achievement. A Nova Counselor has initialed and dated each requirement as completed.

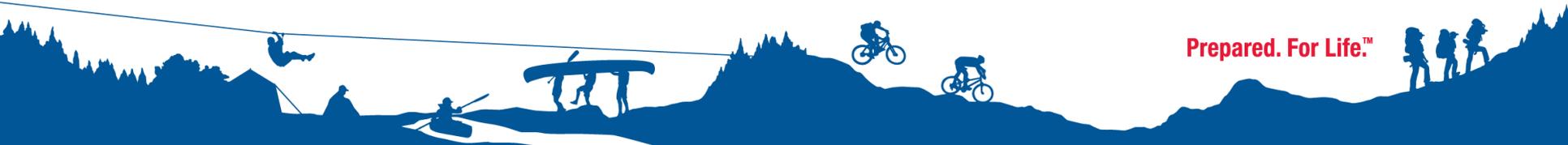
1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____

I certify that all requirements have been completed properly.

Counselor Name/Date _____

Counselor Signature _____

Unit leader should present this card and an advancement report to the local Scout Shop to purchase awards.



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How to Counsel – You Can Do It !



4. At the next meeting, work with the Scout on the different activities. Help them be successful. Help them get the big picture and see the key ideas. Keep it interesting and have fun.
5. At the meetings, when the Scout is ready, ensure they have met the requirements as stated. No more and no less. If working with a group of Scouts, each Scout must accomplish the requirements.
6. When all of the requirements are met, note completion on the “card”, worksheet, or handbook.
 - The Counselor must sign the card to prove completion (?). Note partial completions if necessary, and encourage them to try again.
 - The Mentor will sign a Supernova Award application form.





Best Practices (1)



- **Every unit should have a Nova STEM Coordinator**
- **Trained Leader - Nova Counselor / Supernova training; EDGE**
- **Know the activities (Nova activity kits? / Supernova activities)**
- **Safety first!**
 - Ensure that proper safety equipment and procedures are used. Maintain discipline. Avoid damage or injury. Ensure that people are paying attention.
- **Be Flexible**
- **When the Scout develops questions...**
 - Questions you don't know the answer to are an opportunity to look up together. Make a note of common questions so you can look them up ahead of time.
- **Show them, then let them do it**
- **Be success oriented (Try again if it didn't go right or they need practice)**

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Best Practices (2)



- **Ask the Scout questions (To help them discover the key points)**
 - What did you do? Ask leading questions if necessary. “Compare and contrast ...”, “What if ...”, “Why did ...”. Ask them how the key idea is used, influences other things, or affects them. Help them see the connections.
- **Adapt to attention span**
- **Develop Junior Scientists**
 - Let more experienced Scouts lead Nova activities. You should supervise and ensure that the activities are complete and the key ideas have been discovered.
- **Age Appropriate Expectations**
 - Remember the level of the Nova award and how much exposure to the topics the Scout may have. Don’t expect more/less than they can do & what the award requires.
- **Stay current. (New Nova Awards released occasionally / changes).**



Nova Reports



- **Report style for Nova and Supernova activities is up to the scout**
 - Oral
 - Written
 - Poster
 - Virtual poster
 - Video production
 - Any format of scouts own design with mentor's advance approval
- **Objective to communicate what was learned and how**

Experiment Title:
Question:
Research:
Hypothesis:
Procedure:
Data:
Results:
Conclusions/New Experiments:

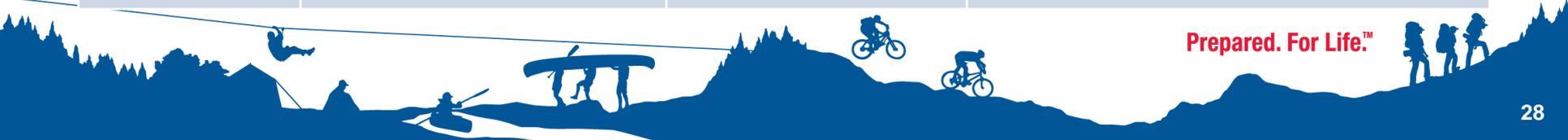




Characteristics and Needs of Scouts



Program	Age and Experience	Group Structure	Learning Styles
Cub Scouts, Webelos	<ul style="list-style-type: none"> Boys 8 – 10 years old Grade 2 – 4 Little math or science contact 	<ul style="list-style-type: none"> Generally in Dens of 4 – 8 Scouts adult leader 	<ul style="list-style-type: none"> See and do Tactile and visual Structured Learning Open to everything – no preconceived notions
Boy Scouts	<ul style="list-style-type: none"> Boys 11 – 18 years old Grade 5 – 12 Some math and science education 	<ul style="list-style-type: none"> Small groups of 2 to 8, with a buddy Youth leader 	<ul style="list-style-type: none"> See and do Tactile and visual Use EDGE teaching method Eager to explore new worlds Science may be seen as “too hard”
Varsity Scouts, Venturers	<ul style="list-style-type: none"> Young Men and /or Women 14 – 20 years old Grades 8+ 	<ul style="list-style-type: none"> Groups of 2 or more (with a buddy) Youth leader 	<ul style="list-style-type: none"> See and do Reflection, research, brainstorm Self directed – Counselor is a team leader Emulate adult as role model Science and Math may be seen as “un-cool”



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Tailor Your Teaching Method



Coaching

Cub Scouts, Webelos, younger Boy Scouts

- **Share knowledge**
- **Lead experiences**
- **Provide advice**
- **Teach Scout**

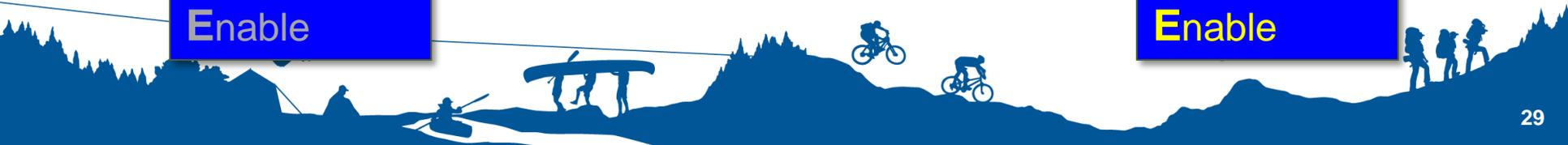
Explain
Demonstrate
Guide
Enable

Mentoring

Older Boy Scouts, Varsity, Venturers

- Share extensive experience
- Support explorations
- Guide activities
- Listen, guide thinking and analysis
- Help Scout learn on own

Explain
Demonstrate
Guide
Enable





Expectations and Outcomes



- Age-Appropriate Learning
- Interest
- Confidence
- Fun

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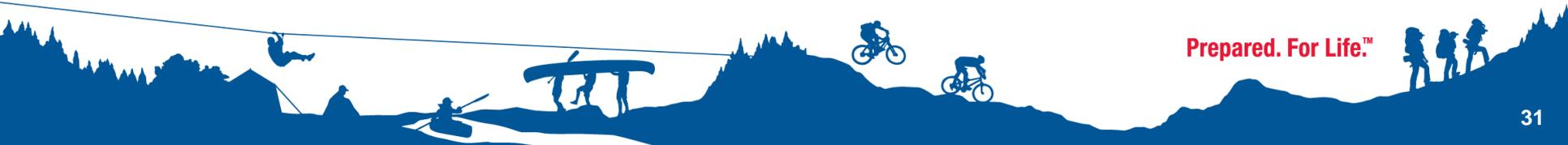




Risk Mitigation



Situation	Risk	Mitigation
Scouts research topics on the Internet	<ul style="list-style-type: none"> • Contact with inappropriate content • Susceptible to Cyber Bullying 	
Scouts in contact with adults not known to them	<ul style="list-style-type: none"> • Inappropriate contact • Allegations of inappropriate contact 	<ul style="list-style-type: none"> • Youth Protection training and policies • Youth follow Buddy System
Different levels of education or understanding of material	<ul style="list-style-type: none"> • Missed program opportunities • Disrespect from/to peers • Bullying 	<ul style="list-style-type: none"> • Adjust teaching techniques to abilities and preparation level of Scouts • Maintain group discipline • “No Cheap Shots” policy
STEM activities contain hazards	<ul style="list-style-type: none"> • Injury • Property damage 	<ul style="list-style-type: none"> • Use safety gear and practices • Maintain control of activities



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Completion of Award



- **Congratulate scout**
- **Inform unit leader**
- **Fill out paperwork**
 - BSA Advancement Report (No. 34403) as documentation for the Nova Award
 - Take advancement report to scout store to purchase
 - Supernova Award Application
 - Will need signatures – scout, mentor, unit leader, District advancement director, Council executive
 - Can take signed application to scout store to purchase medal
- **Celebrate awards with an appropriate ceremony**





Will You Be a Counselor or Mentor?



- The Youth of Today and the America of Tomorrow need your support
- What's Next
 - You have now completed Nova Counselor/Mentor Training
 - Complete the Counselor/Mentor registration process
 - Get Registered with BSA
 - Take Youth Protection training on-line
- Share your STEM expertise



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Application Process



Nova Counselor

1. BSA Adult application (code 58 for Nova Counselor)
2. Youth protection training certificate
3. Nova/Supernova training certificate

Submit copy of these 3 items to your Council/District STEM committee or Advancement chair

Supernova Mentor

1. BSA Adult application (code 52 for Supernova Mentor)
2. Youth protection training certificate
3. Nova/Supernova Mentor training certificate
4. SN Mentor application

Submit copy of these 4 items to your Council/District STEM committee or Advancement chair

BOTH Nova Counselor & Supernova Mentor

- TWO BSA Adult applications (use appropriate codes)
- Expect 4 weeks for Council to process your applications

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ADULT APPLICATION

524-501

This form is read by machine. Please print the numbers and letters as shown:

1 2 3 4 5 6 7 8 9 0 A B C D E F G H I

The information obtained in this form is for the internal use of the BSA only.

UNIT SCOUTERS (Fill in the circle.)

Pack Troop Team Crew Ship Unit No. _____ OR _____

Council/district position _____

All questions must be answered.

EXPIRE DATE ____ / ____ / ____ TERM ____ MONTHS New leader Former leader

District name _____

If applicant has an unexpired membership certificate, registration may be accomplished at no charge by transferring the registration. Mark and attach a copy of the certificate.

TRANSFER FROM: COUNCIL NO. ____ TYPE OF UNIT ____ UNIT NO. ____

Please print one letter in each space—press hard; you are making three copies.

First name (No initials or nicknames) _____ Middle name _____ Last name _____ Suffix _____

Country _____ Mailing address _____ City _____ State _____ Zip code _____

US _____

Home phone _____ Business phone _____ Ext. _____ Cell phone _____

Date of birth (mm/dd/yyyy) _____ Ethnic background: Black/African American Native American Alaska Native Asian Caucasian/White Hispanic/Latino Pacific Islander Other _____ Driver's license No. _____ State _____

Gender M F Social Security No. (required) _____ Occupation _____ Employer _____

Country _____ Business address _____ City _____ State _____ Zip code _____

Position Code _____ Scouting position (description) _____ Are you an Eagle Scout? Yes No Date earned (mm/dd/yyyy) _____

Home address Work Home _____ @ _____ **Boys' Life subscription**

I understand that:
a. The information that I have provided may be verified by contacting persons or organizations named in this application, or by contacting any person or organization that may have information.
I hereby release that provides information to the council, Boy Scouts of America, and the Boy Scouts of America. In signing this application, I agree to follow the BSA's Youth Protection policies and will complete Youth Protection training within 30 days of registering.

APPROVALS FOR UNIT SCOUTERS: We are unaware of anything contrary to the information stated in this application. This application has been reviewed according to BSA procedures, and this applicant meets the leadership qualifications of the BSA.

52 Supernova Mentor
58 Nova Counselor

Signature of applicant _____ Date _____ (ACCEPTED) Signature of Scout executive or designee _____ Date _____ Signature of chartered organization head or representative _____ Date _____ Signature of Scout executive or designee _____ Date _____

- Scouting background. Position _____ Council _____ Year _____
- Experience working with youth in other organizations. Please provide contact information. _____
- Previous residences (for last five years). City _____ State _____
- Current memberships (religious, community, business, labor, or professional organizations). _____
- References. Please list those who are familiar with your character as it relates to working with youth. References may be checked. Name _____ Telephone (____) _____ Name _____ Telephone (____) _____ Name _____ Telephone (____) _____
- Additional information. Yes or No (Mark each answer.)
 - Do you use illegal drugs? Yes No
 - Have you ever been convicted of a criminal offense? (If yes, explain below.) Yes No
 - Have you ever been charged with, or investigated or arrested for, child neglect or abuse? Yes No
 - Has your driver's license ever been suspended or revoked? (If yes, explain below.) Yes No
 - Other than the above, is there any fact or circumstance involving you or your background that would call into question your being entrusted with the supervision, guidance, and care of young people? (If answer is yes, explain below.) Yes No

APPROVAL FOR COUNCIL AND DISTRICT SCOUTERS We are unaware of anything contrary to the information stated in this application. This application has been reviewed according to BSA procedures, and this applicant meets the leadership qualifications of the BSA:



SUPERNOVA AWARDS MENTOR INFORMATION

Name _____ Age _____

Business phone (_____) _____ Home phone (_____) _____

Mobile phone (_____) _____ Email _____

Address _____

City _____ State _____ Zip code _____

To qualify as a Supernova awards mentor, you must

- Be at least 21 years old.
- Be proficient in the Supernova topics by vocation, avocation, or special training.
- Be able to work with Scout-age youth.
- Be registered with the Boy Scouts of America.
- Be current with BSA Youth Protection training.

As a Supernova awards mentor, I agree to

- Follow the requirements of the Supernova award, making no deletions or additions, ensuring that the award standards are fair and uniform for all youth.
- Have a Scout or Venturer with a buddy or a second adult over age 18 present at all instructional sessions.
- Renew my registration annually if I plan to continue as a Supernova awards mentor.
- Follow all protocols outlined in BSA Youth Protection training.

	Vocation <small>Is this subject in line with your job, business, or profession? If yes, give brief information on the reverse side.</small>	Avocation <small>Do you follow this subject as a hobby, having more than a "working knowledge" of the requirements? If yes, give brief information on the reverse side or in an attachment.</small>	Special training <small>If not, do you have any special training or other qualifications for this subject? If yes, give brief information on the reverse side or in an attachment.</small>
List Supernova topics you are qualified and willing to mentor here.			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

Attach additional sheets if necessary.

CHECK ONE:

I wish to work only with _____
Unit No.

This is a (check one) Pack Troop Crew

I wish to work with units in the following programs:

Pack Troop Crew

Signature _____ Date _____

Note: The BSA Adult Registration Application must be attached.

Council approval by _____ Date _____





To find a Counselor / Mentor



- Check with your District or Council Advancement chair to find names of approved Counselors and Mentors
 - Council specific; may have a listing on their website

ACHIEVEMENT

Advancement

- Advancement Trail
- Internet Advancement
- Merit Badge Counselors
- Eagle Scouts
- Merit Badges
- Merit Badge Skill Centers
- Causality Awareness
- Fish & Wildlife Management
- Fishing/Ty Fishing
- CSAW/BSAW

Awards

- Beacon Award
- Youth Awards
- Adult Awards
- Commissioner Awards

CALENDAR

- October 10**
Ozark Trailblazers Fall Camporee
- October 10**
Sioux Fall Camporee
- October 10**
New Horizons Fall Camporee
- October 10**
Grand Towers Fall Camporee
- October 10**
River Trails Webelos-Res

MERIT BADGE COUNSELORS

Scouts wanting to earn a merit badge can use the Merit Badge Counselors list below to find a counselor who can help. A new interactive list is coming soon.

If you experience any issues with the Merit Badge Counselors list, contact Rhonda Schwartz at 314-256-3130 or rhonda.schwartz@scouting.org.

[Merit Badge Counselor Directory](#)

Jink	Mike	Dardenne Prairie	MO	63368 Boone Trails	314.740.0861	636.379.0409	mike.jink@mc.com	Supernova Mentor
Jackson, Sr.	Walter	O'Fallon	MO	63366 Boone Trails	636.377.9442	636.377.9442	wjackson@scouting.com	Supernova Mentor
Rix	Justin	Marion	IL	62959 Egyptian	636.942.1151	314.471.6339	justinrix74@yahoo.com	Supernova Mentor
VanVooren	Michael	Ballwin	MO	63021 New Horizons	314.422.4058	314.422.4058	michael.vanvooren@charter.net	Supernova Mentor
Gashart	Matthew	Arnold	MO	63070 River Trails	636.292.9808	636.222.8111	matthewgashart@gmail.com	Supernova Mentor
Scriben	John	St. Peters	MO	63376 Boone Trails	636.795.9251	636.795.9251	scriben74@yahoo.com	Supernova Mentor
Rix	Justin	Marion	IL	62959 Egyptian	636.942.1151	314.471.6339	justinrix74@yahoo.com	Supernova Mentor
Scriben	John	St. Peters	MO	63376 Boone Trails	636.795.9251	636.795.9251	scriben74@yahoo.com	Supernova Mentor
Brighton	Ronald	O'Fallon	MO	63368 Boone Trails	314.765.0746	314.545.5569	bbobkober@gmail.com	Supernova Mentor
Emberton	Patrick	O'Fallon	MO	63368 Boone Trails	636.614.9165	636.614.9165	stemberton@gmail.com	Supernova Mentor
Gear	Jeffrey	Saint Charles	MO	63304 Boone Trails	314.517.6956	636.795.9251	scriben74@yahoo.com	Supernova Mentor
Gurfen	Kevin	O'Fallon	MO	63368 Boone Trails	636.795.9251	636.795.9251	scriben74@yahoo.com	Supernova Mentor
Sessler	Bobby	Westville	MO	63385 Boone Trails	314.409.6756	636.240.2230	apegrim@centurylink.net	Supernova Mentor
Venegoni	Mike	St. Peters	MO	63376 Boone Trails	314.413.4388	314.413.4388	mike.venegoni@charter.net	Supernova Mentor
Keesey	Christopher	O'Fallon	MO	63366 Boone Trails	636.293.4418	636.293.4418	ckeesey@gmail.com	Supernova Mentor
Calvert	Wesley	Carrollville	IL	62918 Egyptian	618.538.8457	618.538.8457	wcalvert@gmail.net	Supernova Mentor
Rix	Justin	Marion	IL	62959 Egyptian	636.942.1151	314.471.6339	justinrix74@yahoo.com	Supernova Mentor
Givens	Patrick	Saint Louis	MO	63129 Gravois Trail	314.409.2281	314.845.8762	pdgbaast@gmail.com	Supernova Mentor
Stange	James	Fenton	MO	63026 Gravois Trail	636.575.2690	636.575.2690	jamestange@yahoo.com	Supernova Mentor
Sterners	Stephen	St. Louis	MO	63109 Gravois Trail	314.429.1239	314.429.1502	sterners2011@gmail.com	Supernova Mentor
Frost	Tony	St. Louis	MO	63129 Gravois Trail	314.846.2300	314.591.6291	frost45@amartech.net	Supernova Mentor
Beaty	James W	DuQuoin	IL	62832 Kaskaskia	618.559.4074	618.559.4074	tbeaty76@hotmail.com	Supernova Mentor
Realty	Tori	DuQuoin	MO	62832 Kaskaskia	618.559.4074	618.559.4074	tbeaty76@hotmail.com	Supernova Mentor
Colletti	Ron	Wilwood	MO	63040 New Horizons	314.578.3832	636.737.6678	rcolletti@aol.net	Supernova Mentor
Colletti	Teresa	Wilwood	MO	63040 New Horizons	314.578.3832	314.578.3832	collettifamily@aol.net	Supernova Mentor
Cudney	Elizabeth	Ballwin	MO	63021 New Horizons	314.650.0292	314.650.0292	cudney@msd.edu	Supernova Mentor
Fisher	Cheryl	Chesterfield	MO	63020 New Horizons	314.502.0442	314.502.0442	fisherfamily@yahoo.com	Supernova Mentor
Garland	Jerry	Ballwin	MO	63021 New Horizons	314.651.0089	618.239.3285	jerrygarland2001@yahoo.com	Supernova Mentor
Grupe	Robert	Chesterfield	MO	63017 New Horizons	314.278.7901	636.778.9797	robert@grupe.com	Supernova Mentor
Hammond	Todd	Kirkwood	MO	63122 New Horizons	314.821.7897	314.821.7897	scoutertodd113@gmail.com	Supernova Mentor
Lieberman	Debbie	Fenton	MO	63026 New Horizons	314.608.0801	314.608.0801	debbielieberman12@gmail.com	Supernova Mentor
Samuels	Edward	Ballwin	MO	63021 New Horizons	314.330.3163	636.391.1607	e.samuel@bcglobal.net	SuperNova Mentor
Schultz	Adrienne	Chesterfield	MO	63017 New Horizons	636.699.0284	636.699.0284	amichultz@bc.com	Supernova Mentor
Traylor	Betha	North Star	MO	63031 North Star	314.731.0027	314.731.0027	mtaylor@bcglobal.net	Supernova Mentor
Morris	Terry	St. Louis	MO	63135 North Star	985.768.1563	314.524.5123	Takas5@charter.net	Supernova Mentor
Robinson	Michelle	Florissant	MO	63031 North Star	314.716.2533	314.541.0666	michellerobinson@att.net	Supernova Mentor
Howland	Valerie	Union	MO	63084 Osage	636.584.0935	636.584.0935	val29@hotmail.com	Supernova Mentor
Deiss	Charles	Arnold	MO	63010 River Trails	314.267.1180	314.267.1180	cdess@msn.com	Supernova Mentor
Deiss	Charles	Arnold	MO	63010 River Trails	314.267.1180	314.267.1180	cdess@msn.com	Supernova Mentor
Thomas	John	St. Louis	MO	63146 New Horizons	314.503.0441	314.503.0441	john1392@aol.com	Supernova Mentor
Bulbos	Lisa	Kirkwood	MO	63122 New Horizons	314.263.2303	314.966.5358	lisa@bulbos.com	Supernova Mentor
Lehmann	Justin	St. Charles	MO	63083 Boone Trails	314.440.7758	314.770.0607	just1820@aol.com	Supernova Mentor
Ponke	Jeremy	O'Fallon	MO	63366 Boone Trails	512.740.9582	512.740.9582	jpouke@gmail.com	Supernova Mentor
Spiegel	Christopher	O'Fallon	MO	63368 Boone Trails	636.300.1724	636.300.1724	mickspiegel@att.net	Supernova Mentor
Dill	Jacqueline	St. Louis	MO	63116 Thunderbird	314.436.0272	314.694.4878	jacqueline.dill@gmail.com	Supernova Mentor
O'Leary	Jennifer	St. Louis	MO	63109 Thunderbird	314.494.3325	314.494.3325	jean@oleary.com	Supernova Mentor
Matterson	Frank	Sikeston	MO	63801 Cherokee	573.521.6519	573.521.6519	frankmatterson@gmail.com	Supernova Mentor
Bulwerick	Douglas	Valley Park	MO	63088 New Horizons	314.500.0173	314.500.0173	scoutdoug@earthlink.net	Supernova Mentor
Haas	Michael	Barnhart	MO	63012 New Horizons	314.805.2245	314.805.2245	mhaas15@gmail.com	Supernova Mentor
Williams	Mark	Chesterfield	MO	63017 New Horizons	636.532.5659	314.234.7535	mot.w@bcglobal.net	Supernova Mentor

<http://stlbsa.org/achievement/advancement/merit-badge-counselors/>

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Resources for Counselors / Mentors



- **STEM in Scouting website:** <http://www.scouting.org/stem.aspx>
- **GSLAC STEM website:** <http://stlbsa.org/activities/other-activities/stem/>
 - STEM Program Preview 2016-2017

Facebook

- Nova Award, BSA
- Scouting and STEM - Greater St. Louis Area

Additional resources

- Ward's Boy Scout Nova Teaching Guide: <http://www.troop52.org/STEM.html>



- STEM websites – Nova Booklets are packed with URLs!
- Articles in Scouting and Boys Life Magazine
- *Brian's Blog*

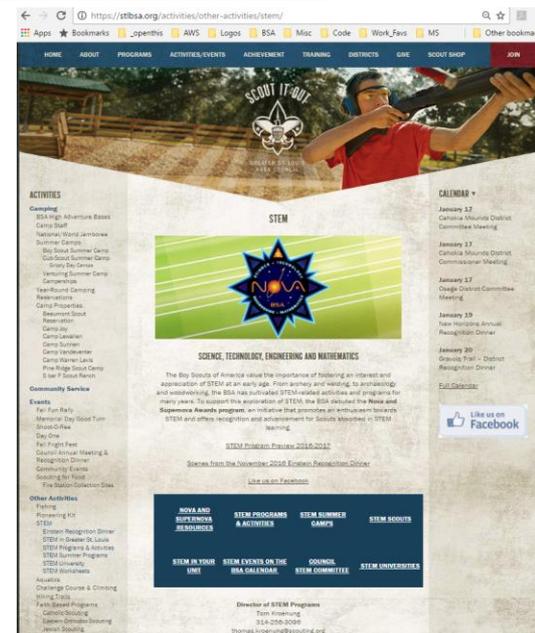
Cub Cast on “CS and STEM”:

<http://www.scouting.org/Scoutcast/Cubcast/2014.aspx> May and
<http://www.scouting.org/Scoutcast/Cubcast/2015.aspx> July

Scout Cast on “BS and STEM”:

<http://www.scouting.org/scoutcast/scoutcast/2015.aspx> March

STEM Scouts: <https://stemscouts.org/>





GSLAC Points of Contact



- **GSLAC STEM Committee**

- Thomas P. Kroenung | STEM Program Director
 - Dan Robinson | Venturing/Exploring STEM subcommittee
 - Lisa Balbes | Boy Scout STEM subcommittee
 - Stephen Masaki | Cub Scout STEM subcommittee
 - Ron Colletti | STEM Training subcommittee
- District STEM Chairman





Summary



- **Various roles for adults in the Nova program**
- **Counselors / Mentors must register for the position**
- **Use the methods of counseling & mentoring**
 - Some knowledge / experts in STEM topics
 - Lead scouts toward improved awareness of STEM topics
 - Tailor teaching techniques to ages and abilities of Scouts
 - Support BSA requirements and guidelines
- **Use the Nova and Supernova process to help Scouts earn awards**

Don't forget to pick up your "trained" counselor & mentor cards

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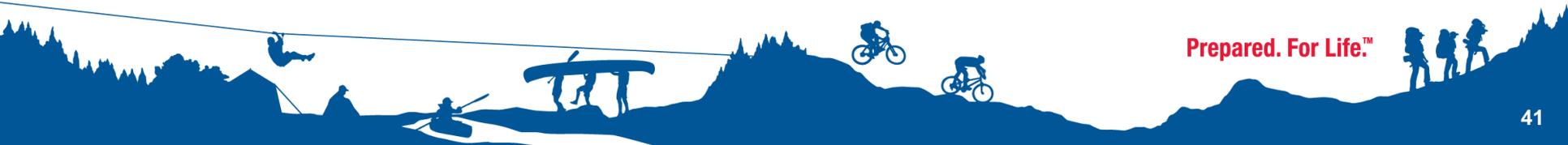




Questions, Comments, Feedback...



- What new topics would your scouts like to experience in the Nova program?



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