



National Capital Area Council
Guide for a Scouts BSA Youth to Earn a STEM Supernova Award

Scouts BSA Supernova Awards

BSA established the Supernova Awards program to go beyond the Nova Awards to further stimulate Scout and Venturer interest in STEM-related fields, and show how science, technology, engineering and mathematics apply to everyday living and the world around them.

Assumptions

- A unit has an affiliated Supernova Mentor (registered with NCAC) and who is current with Youth Protection Training.
- The District has an Advancement & Recognition Chair and a STEM Coordinator to provide assistance

Guide Posts

- Scouts BSA Youth are introduced to STEM through a series of activities and achievement.
- The Supernova Awards recognize superior achievement by accomplishing experiments and other activities.
- Follow Guide to Safe Scouting for all Activities.
- The Supernova Awards include:

| Program | Supernova Awards |
|---|--|
| Scouts BSA https://www.scouting.org/stem-nova-awards/awards/scouts-bsa/ | Dr Bernard Harris Supernova Award Thomas Edison Supernova Award |

- The Dr Bernard Harris Supernova Award requires:

| Requirement | Activity | Transaction |
|-------------|---|---|
| 1 | Complete any three of the Scouts BSA Nova Awards (any time after joining Scouts BSA) | <ul style="list-style-type: none"> • Shoot, Let it Grow, Splash = Science • Start Your Engines = Technology • Whoosh, Up and Away = Engineering • Designed to Crunch = Math |
| 2 | Earn the Scholarship merit badge | http://www.scouting.org/filestore/Merit_Badge_Regan_dRes/Scholarship.pdf |
| 3 | Earn four of the Supernova approved merit badges | 47 to choose from, one is Eagle required |
| 4 | Complete two Supernova activity topics, one each in different STEM areas | See Supernova activity information below |
| 5 | Participate in a science fair competition or mathematics competition or equally challenging STEM oriented competition | Approved by Supernova Mentor |
| 6 | Either 'shadow' for a day a local scientist/engineer or learn about a STEM career | Report/present to your Supernova Mentor |
| 7 | Present a Nova or other STEM related program at a Cub Scout den or pack meeting | Gain approval from the unit and arrange meeting time/place |
| 8 | Review the scientific method, conduct a comparative analysis and make a presentation | Present to your Mentor |
| 9 | Submit an application package for the Scout BSA Dr. Bernard Harris Supernova Award | See process below (**) |

- The Thomas Edison Supernova Award requires:

| Requirement | Activity | Transaction |
|-------------|---|--|
| 1 | Earn the Dr Bernard Harris Supernova Award | See above |
| 2 | Complete one additional Scout BSA Nova award for a total of four. This may be done at any time after joining Scouts BSA | See above |
| 3 | Earn four additional Supernova-approved merit badges. These may be earned at any time after | 47 to choose from, one is Eagle required |



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|---|---|---|
| | joining Scouts BSA | |
| 4 | Complete two additional Supernova Activity Topics, one each in the two STEM areas not completed for the Harris Supernova Award. | See Supernova Activity Topic below. Report/present to Supernova Mentor. |
| 5 | Participate in a science fair competition or mathematics competition or equally challenging STEM oriented competition (in addition to the competition accomplished for the Harris Supernova Award | Approved by Supernova Mentor |
| 6 | Present a Nova or other STEM related program at a Cub Scout den or pack meeting (in addition to the presentation accomplished for the Harris Supernova Award) | Gain approval from the unit and arrange meeting time/place |
| 7 | Research a scientific, technical, engineering, or mathematical breakthrough or invention of the past 100 years that has affected our society in a meaningful way and present your hypothesis on how it might further affect our society during your lifetime. | Present either a 30-minute oral report or a 1,500-word written report to your mentor. |
| 8 | Submit an application package for the Boy Scout Thomas Edison Supernova Award | See process below (**) |

Success means

- The key to delivering a successful STEM Supernova program in a unit is to integrate STEM into the accomplishment of existing unit program activities.
- Success requires a concerted, focused effort by the Scout, with the assistance and guidance of a Supernova Mentor, the unit STEM coordinator, the unit merit badge coordinator and the unit leader.
- The District STEM Coordinator is available to coordinate an event between a den or pack and scout working on their own Supernova Award

Process to Achieve Supernova Award

- Identify the registered Supernova mentor – to help guide the Scout thru the award process. If the unit does not have an affiliated Supernova Mentor, contact the District STEM Coordinator or Advancement & Recognition Committee Chair. Register as a Supernova Mentor (position code 52, non-unit position, no registration fee, age 21 or over, subject matter expert in STEM) using BSA Adult application, complete Youth Protection and complete [Supernova Awards Mentor Information form](#) and turn into Council.) Training for Supernova Mentors is online at <https://my.scouting.org> (Click BSA Learn Center, then STEM in Scouting) or in person through the Council.
- Supernova Mentors may mentor their own offspring in a group setting if there are no alternates available.
- Determine if there are fellow Scouts who want to also earn the Supernova Award. Every Scout must have a buddy present at each meeting with a mentor. The buddy can be another Scout, a parent or guardian, a sibling, relative or friend. Youth Protection guidelines shall be followed at all times.
- Determine if there are any activities that can be accomplished as part of the unit’s program
- Develop a plan and work with your Supernova Mentor to accomplish the Supernova Award requirements. The Mentor reviews all projects and progress and ensures that each Scout has actively and personally fulfilled *all* requirements. For example, a requirement uses words like “show”, “demonstrate,” “report,” or “discuss” then every Scout must individually do so. It is unacceptable to present awards on the basis of Scouts sitting in classrooms and watching demonstrations or remaining silent during discussions.
- Supernova Activities may include a variety of report formats: oral report, written report, poster presentation, virtual poster, video production, multifaceted format, or any format of the Scout’s own design, with mentor’s advance approval. The report must provide sufficient detail so that someone unfamiliar with the topic can understand its content.



- The Supernova application *package*** includes the [Supernova application](#) and copies of reports and appropriate documentation. The documentation may include a Gold Card and proof of Merit Badges or Nova awards. Worksheets, while not required, completed by the Scout can aid the process. The application has several signatures:
 - Unit Leader approves by signifying that the youth is registered with the unit and eligible for the award. It is helpful if the Unit Leader records which optional requirements were performed.
 - Candidate states that he/she has completed all requirements and worked with the Mentor.
 - Mentor approves, stating that he/she has reviewed application and recommends approval. The Mentor sends the application *package* on to District or Council STEM/Nova Committee below.
 - Council or District STEM/Nova Committee Chair approves by reviewing the application and determining that the applicant has met all requirements. If the District STEM/Nova Committee Chair approves, the application package is sent to Council.
 - Scout Executive approves the application and awarding of the Supernova award.
- NCAC will finalize the approved award and contact the unit leader for purchase of the medal. Then the medal and or bar and certificate will be sent to the unit leader.
- The Scout is recognized at the next unit court of honor or similar event.

Resources

- The NCAC STEM Committee Web page at <https://www.ncacbsa.org/activitiesevents/stem/> This page describes the NCAC STEM Program, how to register as a Supernova Mentor, training opportunities, and other events.
- The BSA STEM home page is at <http://www.scouting.org/stem.aspx>. Here you can find more information on what the BSA STEM program is all about – and the background on how to successful achieve the Nova Awards.