

Implementing STEM Nova in your Troop



STEM Nova Award Background

Patriots' Path Council has implemented BSA's STEM Nova program. "STEM" is a rather universal acronym for Science, Technology, Engineering and Mathematics. Across America various STEM initiatives focus on enhancing STEM education and improving our youth's competitiveness in areas that are projected to have both employment and interesting challenges that benefit the nation.

STEM is part of an initiative the Boy Scouts of America has taken on to encourage the natural curiosity of youth members and their sense of wonder about these fields through existing programs. From archery to welding, Scouts can't help but enjoy the wide range of STEM-related activities. To support this initiative, the BSA developed the Nova Awards program so that youth members have fun and receive recognition for their efforts.

The Boy Scouts of America developed the Nova Awards program to excite and expand a sense of wonder in our Scouts. By working with an adult counselor or mentor, the various modules allow them to explore the basic principles of STEM and discover how fun and fascinating STEM can be. The Supernova awards are offered for those who enjoy a super challenge. For more information about STEM and the Nova Awards program, visit www.scouting.org/stem. Discover how the Nova Awards program helps youth be **"Prepared. For Life."**

Each award covers one component of STEM—science, technology, engineering, or mathematics.

- **Cub Scout Nova awards:** Science Everywhere, Down and Dirty, Nova WILD!, Out of This World, Tech Talk, Swing!, and 1-2-3 Go!
- **Boy Scout Nova awards:** Shoot!, Start Your Engines, Whoosh!, and Designed to Crunch
- **Venturer Nova awards:** Launch!, Power Up, Hang On!, and Numbers Don't Lie

Nova Award



Cub Scout:
Science Everywhere
Tech Talk
Swing!
1-2-3 Go!

Boy Scout:
Shoot!
Start Your Engines
Whoosh!
Designed to Crunch

Venturing:
Launch!
Power Up
Hang On!
Numbers Don't Lie

<http://www.scouting.org/filestore/STEM/ppt/Nova%20Counselors%20v.%20Supernova%20Mentors.pptx>

The Supernova awards have more rigorous requirements than the Nova awards. The requirements and activities were designed to motivate youth and recognize more in-depth, advanced achievement in STEM-related activities.

In the Nova and Supernova awards, there are references to counselors and mentors. We use the word “counselor” for the adult working with the Nova candidates. Parents and unit leaders may serve as Nova counselors even if they have little or no background in STEM.

A “mentor,” on the other hand, is ideally someone who has successfully negotiated a STEM career path or has other subject matter expertise (such as hobbies or other special training) and is willing to share accumulated wisdom and experience.



STEM Nova for Scouts

Nova awards are managed, counseled, and awarded within a troop. No paperwork need be submitted nor are records kept outside the troop.

BSA's Nova awards are great opportunities for Scouts to explore STEM (Science, Technology, engineering, and Mathematics). The Nova Awards are managed at the Troop level. Scouts may work with a Troop counselor on a 1-1 basis, the Patrol can decide to work on an award as a group, or requirements may be completed at Camp or other events.

Boy Scouts may earn the following Nova awards:

- ✓ Shoot! (Science)
- ✓ Start Your Engines (Technology)
- ✓ Whoosh! (Engineering), and
- ✓ Designed to Crunch (Mathematics)

Note: Supernova awards may be earned after earning at least 3 Nova awards, but are not addressed here.

Nova Counselors

A Nova counselor can be any registered adult age 21 or older that the troop wishes to appoint. A Nova counselor need not have an extensive STEM background but must have a commitment and passion for STEM.

1. All Nova counselors and Supernova mentors must have current (last 2 years) BSA Youth Protection training and certification appropriate for the programs being administered (Boy Scout Y01). This training can be taken online at <http://www.scouting.org/Training/Adult.aspx>.
2. Unless already a registered volunteer with the troop, the Counselor must complete the adult application for "Nova Counselor", position code 58. Application is turned into council at Cedar Knolls.
3. Council informs volunteer that background check is successful and all systems are go.

Counselors should use the "Guide for Nova Award Counselors and Supernova Award Mentors in the back of the Nova Awards Guidebook. Counselors can also contact the PPC STEM Committee for guidance or consultation.

Steps to Introduce Nova Awards in your Troop:

1. Anyone interested in STEM suggests the concept to the PLC.
2. **PLC decides** to implement and sends request to Troop Committee.
3. Troop Committee appoints a **Nova Counselor**.
4. Nova Counselor becomes familiar with the program and begins inspiring the scientists and engineers of tomorrow!
5. **Scouts provide an introductory overview** to the Troop with Nova Counselor guidance.
6. PLC, working with Nova Counselor, **plans a course to complete one** of the four Nova awards (there is no specified order).
 - a. Requirement 1 can be done individually at home, at a Patrol/Troop meeting, or in-person. Note: an in-person speech about the award topic can fulfill part of the 3-hour requirement. Counselor may suggest reading lists/episode-watching ideas.
 - b. Requirements to visit a museum, event, etc. can be done individually, Patrol, or Troop.
 - c. The final requirement to "Discuss with your counselor how [STEM] affects your everyday life." should be 1-1 with your counselor.
7. When it appears awards will be forthcoming, go **buy** an appropriate supply of **emblems** and pi piece devices at the Scout Shop.
8. When the Nova Counselor is satisfied all the requirements have been met, **present the emblem** (or the pi piece device for the 2nd, 3rd, or 4th Award) to the Scout at that meeting and acknowledge at an appropriate event such as a Court of Honor.
9. Continue as interest and opportunities present themselves.

NOTE: Scouts can work on Nova Awards individually or in patrols. A troop-level group may be too large for the Scouts to actively participate, which is, of course, a key component of any Scouting activity.



STEM Nova Resources

Details, including requirements and national information, are here:
<https://ppcbsa.org/committees/stem/>
or
ppcbsa.org ↓ Committees ↓ STEM



Nova Award guidebooks for Cubs, Scouts and Venturers are available at the Scout Shop.