**Boy Scout SUPERNOVA Award**

**Purpose:** To recognize superior achievement by a Boy Scout in the field of Science, Technology, Engineering and Mathematics (**STEM)**.

**Basic Requirements:**

- First Class Scout
- Must select a Council approved SUPERNOVA "mentor" who is a registered Scouter and NOT the parent or unit leader of the candidate.
- Final approval for all SUPERNOVA awards must be by a special Council (or District) SUPERNOVA Award Committee or the existing Council (or District) Advancement Committee.

**Merit Badges approved for Boy Scout SUPERNOVA Awards:**

- SCHOLARSHIP – must be earned for all SUPERNOVA Awards
- ASTRONOMY, CHEMISTRY, ELECTRONICS, ENGINEERING and NUCLEAR SCIENCE – these are classified as the "**Strong Science**" merit badges and one or more of these must be earned for each of the different Boy Scout SUPERNOVA Awards.
- ANIMAL SCIENCE, ARCHAEOLOGY, ARCHITECTURE, AVIATION, COMPOSITE MATERIALS, COMPUTERS, DENTISTRY, DRAFTING, ELECTRICITY, ENERGY, FARM MECHANICS, GEOLOGY, MEDICINE, OCEANOGRAPHY, PLANT SCIENCE, PULP AND PAPER, RADIO, ROBOTICS, SCUBA, SPACE EXPLORATION, SURVEYING, VETERINARY MEDICINE and WEATHER – these are the optional merit badges for the different Boy Scout SUPERNOVA Awards.

**Other approved parameters for Boy Scout SUPERNOVA Awards:**

- High School Advanced Placement (AP) and Honors Classes are defined as those which qualify a student for substitute college credit.
- All experiments or projects should be conducted using the highest level of safety protocol and always under the supervision of a qualified, responsible adult.
- Merit badges or other requirements completed prior to October 2010 may be counted towards the NOVA award during the Pilot Program period subject to the review of the Mentor.

**Dr. Bernard Harris SUPERNOVA Award (the basic SUPERNOVA award for Boy Scouts):**

- Earn the SCHOLARSHIP merit badge, one merit badge from the **Strong Science** group and at least four other merit badges from the NOVA optional merit badge list.
- Join a **STEM** oriented club at your school or in your community (e.g. an Astronomy Club) OR a **STEM** oriented Explorer Post and actively participate for at least 3 months.
- Participate in a local, state or national science fair or mathematics competition OR any other equally challenging STEM oriented competition or workshop approved by your Mentor.
- Do ONE of the following:
    - Write a 1000 word essay on a career that is heavily involved with **STEM**.
    - Spend at least one day "shadowing" a local scientist or engineer and report on your experience and what you learned about STEM careers to your Mentor.
- Learn the Scientific Method and report orally on it to your Mentor (or NOVA Committee) using a combination of explanation and demonstration.
- Organize and conduct a **NOVA** Award or other **STEM** related program to a Cub Scout den or pack meeting working with the Mentor and approved by the appropriate unit leader.
- **Submit an application to the Council/District NOVA or Advancement Committee for approval.**

**Thomas Edison SUPERNOVA Award (the intermediate SUPERNOVA award for Boy Scouts):**

- Earn the SCHOLARSHIP merit badge, two merit badges from the **Strong Science** group and at least eight other merit badges from the SUPERNOVA optional merit badge list.
- Join a **STEM** oriented club at your school or in your community (e.g. an Astronomy Club) OR a **STEM** oriented Explorer Post and actively participate for at least one year.
- Participate in a local, state or national science fair or mathematics competition OR any other equally challenging STEM oriented competition or workshop approved by your Mentor at least two years.
- Do BOTH of the following:
    - Write a 1000 word essay on a career that is heavily involved with **STEM**.
    - Spend at least one day "shadowing" a local scientist or engineer and report on your experience and what you learned about STEM careers to your Mentor.
- Teach the Scientific Method to a Scouting or other appropriate youth group approved by your Mentor (or SUPERNOVA Committee) using a combination of explanation and demonstration.
- Organize and conduct at least two **NOVA** Award or other **STEM** related programs to a Cub Scout den or pack meeting working with the Mentor and approved by the appropriate unit leader.
- Research a scientific or mathematical breakthrough or invention of the past 25 years and write a 1500 word report on how this has affected our society to date and present your hypotheses on how it might further affect our society during your lifetime. Present your report to your Mentor.
- **Submit an application to the Council NOVA or Advancement Committee for approval.**

**Albert Einstein SUPERNOVA Award (the advanced or challenge SUPERNOVA award for Boy Scouts):**

- Earn the SCHOLARSHIP merit badge, three merit badges from the **Strong Science** group and at least twelve other merit badges from the SUPERNOVA optional merit badge list.
- Organize a **STEM** oriented club at your school or in your community (e.g. an Astronomy Club) OR a **STEM** oriented Explorer Post and serve in a leadership position for at least one year. (If in the judgment of the Mentor this opportunity does not exist, an equally challenging requirement may be proposed to the NOVA Committee.)
- Participate in a local, state or national science fair or mathematics competition OR any other equally challenging STEM oriented competition or workshop approved by your Mentor at least two years.
- Take and successfully pass at least one AP or Honors mathematics or science course.
- Make contact with a professional involved in a **STEM** related career and spend at least 10 hours with that person learning about his career. Afterwards, write a 1000 word report describing the work that individual does, the training required by that individual to achieve his/her current position, and report on that experience to your Mentor.
- Organize and conduct a series of **NOVA** Award or other **STEM** related programs to a Cub Scout den or pack meeting working with the Mentor and approved by the appropriate unit leader. A minimum of 25 hours should be dedicated to the preparation of the program plans. The program should include an interesting combination of explanation and demonstration components designed to teach the Scientific Method.
- With guidance from your Mentor, select an area of current **STEM** related concern and develop a research project or experiment related to that area. This research project or experiment should be both challenging and interesting and should require a meaningful and significant investment of time and effort on the part of the candidate in the same manner in which an Eagle Scout project requires on the part of the Eagle Scout candidate. A suggested minimum commitment would be 100 total hours of time.
- Execute the research project or experiment selected above and present a complete and well documented written and oral report on same to your Mentor and local NOVA Committee.
- **Submit an application for this award to the National NOVA Committee for approval.**

**Boy Scout SUPERNOVA Award Recognition Materials:**

- Bernard Harris Award: Certificate and Bronze Pocket Medal.
- Thomas Edison Award: Certificate and Silver Pocket Medal.
- Albert Einstein Award: Certificate and Gold Pocket Medal.

***All of the above awards will also earn a square knot and a temporary style pocket patch.***