



Dr. Bernard Harris

Boy Scout Supernova Award Workbook



This workbook can help you but you still need to read the Boy Scout Nova Awards Guidebook.
 This Workbook can help you organize your thoughts as you prepare to meet with your mentor.
 You still must satisfy your mentor that you can demonstrate each skill and have learned the information.
 You should use the work space provided for each requirement to keep track of which requirements have been completed,
 and to make notes for discussing the item with your mentor, not for providing full and complete answers.
 If a requirement says that you must take an action using words such as "discuss", "show",
 "tell", "explain", "demonstrate", "identify", etc, that is what you must do.

Mentors may not require the use of this or any similar workbooks.

No one may add or subtract from the official requirements found in the Boy Scout Nova Awards Guidebook (Pub. 34033 – SKU 614936).
 The requirements were issued in 2012 • This workbook was updated in June 2018.

Scout's Name: _____ Unit: _____
 Mentor's Name: _____ Mentor's Phone No.: _____

<http://www.USScouts.Org> • <http://www.MeritBadge.Org>

Please submit errors, omissions, comments or suggestions about this **workbook** to: Workbooks@USScouts.Org
 Send comments or suggestions for changes to the **requirements** for the **Nova Award** to: Program.Content@Scouting.Org

First-Level Supernova Award for Boy Scouts

Here are the merit badges approved for use in earning the Boy Scout Supernova awards:

Animal Science	Electricity	Insect Study	Reptile and Amphibian Study
Archaeology	Electronics	Inventing	Robotics
Architecture	Energy	Mammal Study	Scuba Diving
Astronomy	Engineering	Medicine	Signs, Signals, and Codes
Automotive Maintenance	Environmental Science	Mining in Society	Soil and Water Conservation
Aviation	Farm Mechanics	Nature	Space Exploration
Bird Study	Fish and Wildlife Management	Nuclear Science	Surveying
Chemistry	Forestry	Oceanography	Sustainability
Composite Materials	Game Design	Plant Science	Veterinary Medicine
Dentistry	Gardening	Programming	Weather
Digital Technology	Geocaching	Pulp and Paper	Welding
Drafting	Geology	Radio	

- 1. Complete any three of the Boy Scout Nova awards. (Note: These may be done at any time after becoming a Boy Scout.)
 Shoot! Whoosh! Start Your Engines! Designed to Crunch
- 2. Earn the Scholarship merit badge.
- 3. Earn four of the Supernova approved merit badges from the above list. (Note: These may be earned at any time after becoming a Boy Scout.)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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4. Complete TWO Supernova activity topics. one each in two different STEM areas.

Science Technology Engineering Mathematics

A Supernova activity topic is a two-part, hands-on, high-level activity related to one of the STEM fields. Part 1 involves research, preparation, set up, coordination, and/or organization. Part 2 involves analysis and reflection, culminating in the creation of a report in any one of the available format options. See the "Supernova Activity Topics" chapter (in the Boy Scout Nova Awards Guidebook - Publication No. 34033) for more information about activity topics

5. Participate in a local, state, or national science fair or mathematics competition OR in any equally challenging STEM-oriented competition or workshop approved by your mentor. An example of this would be an X-Prize type competition.

Competition:

6. Do ONE of the following

- A. With your parent's permission and your mentor's approval, 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.

Date(s):

Person Shadowed:

- B. Learn about a career that is heavily involved with STEM. Make a presentation to your mentor about what you learned.

7. Working with your mentor, organize and present a Nova award or other STEM-related program to a Cub Scout den or pack meeting. Be sure to receive approval from the appropriate unit leader and agree on a time and place for the presentation. If a Cub Scout den or pack is not available, your presentation may be given to another youth group, such as your troop or at your place of worship..

8. Review the scientific method (you may know this as the scientific process) and note how scientists establish hypotheses, theories, and laws. Compare how the establishment of "facts" or "rules" using the scientific method differs from the establishment of "facts" or "rules" in other environments, such as legal, cultural, religious, military, mathematical, or social environments. Then do the following:

- A. Choose a modern scientific subject with at least two competing theories on the subject and learn as much as possible about each theory,
- B. Analyze the competing theories, decide which one is most convincing to you, and explain why to your mentor.
- C. Make a presentation to your mentor that describes the controversy, the competing theories, and your conclusions about how the scientific method can or cannot contribute to the resolution of the controversy.

9. Submit an application to the district or council Nova or advancement committee for approval.

When working on Nova and Supernova awards, Scouts and Scouters should be aware of some vital information in the current edition of the *Guide to Advancement* (BSA publication 33088). Important excerpts from that publication can be downloaded from <http://usscouts.org/advance/docs/GTA-Excerpts-nova.pdf>.

You can download a complete copy of the *Guide to Advancement* .from <http://www.scouting.org/filestore/pdf/33088.pdf>.