



Dr. Sally Ride Supernova Award Requirements

1. As a Venturer or Sea Scout complete THREE of the Venturer/Sea Scout Nova Awards.
2. Complete requirements A and B
 - A. Do ONE of the following:
 1. Show that you have had an average grade of B or higher (80 percent or higher) for one term or semester.
 2. Show that for one term or semester you have improved your school grades over the previous period.
 - B. Do TWO of the following:
 1. Discuss with your mentor the following situation: Suppose you are writing a research paper and you find a resource in which the author's words are so perfectly aligned with your perspectives and understanding that you cannot imagine a better way to put it in your paper than to use the author's own words. How can you handle such a situation while still maintaining scholarly integrity?
 2. Discuss with your mentor the following situation: Suppose you are writing a research paper and you find resources with conflicting "facts" and/or conflicting conclusions. What are some viable strategies for resolving these conflicts and deciding which resources are trustworthy?
 3. Discuss with your mentor the following situation: Suppose you are writing a research paper and have acquired dozens of resources. How would you keep track of the resources, summarize the salient parts of each resource, and synthesize the collection of resources into a coherent research paper?
 4. Get a note from an instructor* of yours that states that during the past term you have demonstrated satisfactory abilities or progress in independently completing scholarly endeavors and proactively seeking help when needed.
3. Do ONE of the following:
 - A. Show that you have taken part in a scholarly activity (in school or in Scouting) that required teamwork and discuss with your mentor what you learned about how a team of people can work together effectively, fairly, and efficiently.
 - B. Find three resources (online, in a library, personal interview, etc.) of expert advice on successful teamwork strategies and discuss with your mentor what you learned about how a team of people can work together effectively, fairly, and efficiently.
4. Do ONE of the following:
 - A. Write an argument of approximately 500 words that defends or opposes the principle that "Students should be obligated to report instances of cheating by others." Discuss this with your mentor.

- B. With your crew/ship, another crew/ship, school class, or another peer group, conduct an ethical controversy discussion that addresses the question, “Should students be obligated to report instances of cheating by others?”
5. Using the guidelines for *Venturing/Sea Scouts STEM Explorations*, complete STEM explorations for four of the topics listed below. Use of Scouts BSA Merit Badge content is encouraged.

Animal Science, Archaeology, Architecture, Astronomy, Automotive Maintenance, Aviation, Bird Study, Chemistry, Composite Materials, Computers, Dentistry, Drafting, Electricity, Electronics, Energy, Engineering, Environmental Science, Farm Mechanics, Fish and Wildlife Management, Forestry, Gardening, Geocaching, Geology, Insect Study, Inventing, Mammal Study, Medicine, Nature, Nuclear Science, Oceanography, Plant Science, Pulp and Paper, Radio, Reptile and Amphibian Study, Robotics, Scuba Diving, Soil and Water Conservation, Space Exploration, Surveying, Veterinary Medicine, Weather, Welding.
6. Complete TWO Supernova activity topics, one each in two different STEM areas.
7. 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.
8. Do ONE of the following:
 - A. Spend at least one day “shadowing” a local scientist or engineer. After your visit, discuss with your mentor your experience and what you learned about STEM careers.
 - B. Learn about a career that is heavily involved with STEM. Make a presentation to your mentor about what you learned.
9. Working with your mentor, organize and present a Nova award or other STEM-related program at a Cub Scout den or pack meeting. Be sure to receive permission from the appropriate unit leader, and plan accordingly. If a Cub Scout den or pack is not available, your presentation may be given to another youth group.
10. 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 each of the following:
 - A. Choose a current subject with at least two competing theories on the subject and learn as much as possible about each theory. Analyze the competing theories, decide which one is most convincing to you, and explain why to your mentor.
11. 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.
12. Submit your Supernova application to the district or council Nova or advancement committee for approval.