



# Dr. Sally Ride

## Venturer Supernova Award Workbook



This workbook can help you but you still need to read the Venturer Nova Awards Guidebook.

The work space provided for each requirement should be used by the Venturer to make notes for discussing the item with his counselor, not for providing the full and complete answers. Each Venturer must do each requirement.

No one may add or subtract from the official requirements found in the Venturer Nova Awards Guidebook (Pub. 34031 – SKU 614934).

The requirements were issued in 2012 • This workbook was updated in April 2015.

Venturer's Name: \_\_\_\_\_ Unit: \_\_\_\_\_

Counselor's Name: \_\_\_\_\_ Counselor'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](mailto:Workbooks@USScouts.Org)

Send comments or suggestions for changes to the **requirements** for the **Nova Award** to: [Program.Content@Scouting.Org](mailto:Program.Content@Scouting.Org)

### First-Level Supernova Award for Venturers

1. Complete THREE of the Venturer Nova Awards. (Note: These may be done at any time after becoming a Venturer.)
- Launch!
  - Hang On!
  - Power Up
  - Numbers Don't Lie
2. Complete the Venturing Scholarship exploration.  
*(The following requirement was inadvertently left out of the guidebook.)*
- 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?
- C. 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.
- \*If you are home-schooled, you may obtain a note from a counterpart such as your parent. If you are near the end of your current term, you may ask a current instructor. Otherwise, you should ask an instructor from the immediate past term.
- D. Do ONE of the following:
- 1. 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.

- 2. 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.
- E. Do ONE of the following:
  - 1. 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.
  - 2. With your crews, another crew, school class, or another peer group, conduct an ethical controversy discussion that addresses the question, "Should students be obligated to report instances of cheating others?"
- 3. Using the guidelines found in the "Venturing STEM Explorations" chapter, complete STEM explorations for four of the topics listed above (*below*). (Note: These may be completed at any time after becoming a Venturer.)
 

<input type="checkbox"/> Animal Science	<input type="checkbox"/> Energy	<input type="checkbox"/> Nuclear Science
<input type="checkbox"/> Archaeology	<input type="checkbox"/> Engineering	<input type="checkbox"/> Oceanography
<input type="checkbox"/> Architecture	<input type="checkbox"/> Environmental Science	<input type="checkbox"/> Plant Science
<input type="checkbox"/> Astronomy	<input type="checkbox"/> Farm Mechanics	<input type="checkbox"/> Pulp and Paper
<input type="checkbox"/> Automotive Maintenance	<input type="checkbox"/> Fish and Wildlife Management	<input type="checkbox"/> Radio
<input type="checkbox"/> Aviation	<input type="checkbox"/> Forestry	<input type="checkbox"/> Reptile and Amphibian Study
<input type="checkbox"/> Bird Study	<input type="checkbox"/> Gardening	<input type="checkbox"/> Robotics
<input type="checkbox"/> Chemistry	<input type="checkbox"/> Geocaching	<input type="checkbox"/> Scuba Diving
<input type="checkbox"/> Composite Materials	<input type="checkbox"/> Geology	<input type="checkbox"/> Soil and Water Conservation
<input type="checkbox"/> Computers	<input type="checkbox"/> Insect Study	<input type="checkbox"/> Space Exploration
<input type="checkbox"/> Dentistry	<input type="checkbox"/> Inventing	<input type="checkbox"/> Surveying
<input type="checkbox"/> Drafting	<input type="checkbox"/> Mammal Study	<input type="checkbox"/> Veterinary Medicine
<input type="checkbox"/> Electricity	<input type="checkbox"/> Medicine	<input type="checkbox"/> Weather
<input type="checkbox"/> Electronics	<input type="checkbox"/> Nature	<input type="checkbox"/> Welding
- 4. Complete TWO Supernova activity topics, one each in two different STEM areas.
 

<input type="checkbox"/> Science	<input type="checkbox"/> Technology	<input type="checkbox"/> Engineering	<input type="checkbox"/> Mathematics
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- 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. Spend at least one day "shadowing" a local scientist or engineer.  
 Date:  Person Shadowed:   
 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.  
 Career:
  - 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 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.

Date:		Group:	
Subject:			

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 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.
- B. 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 Nova or advancement committee for approval.

## Important excerpts from the [‘Guide To Advancement’](#), No. 33088:

The *‘Guide to Advancement’* (which replaced the publication *‘Advancement Committee Policies and Procedures’*) is the official Boy Scouts of America source on advancement policies and procedures.

- [ Inside front cover, and 5.0.1.4 ] — **Unauthorized Changes to Advancement Program**  
**No council, committee, district, unit, or individual has the authority to add to, or subtract from, advancement requirements.** (There are limited exceptions relating only to youth members with disabilities. For details see section 10, “Advancement for Members With Special Needs”.)
- [ Inside front cover, and 7.0.1.1 ] — **The [‘Guide to Safe Scouting’](#) Applies**  
Policies and procedures outlined in the *‘Guide to Safe Scouting’*, No. 34416, apply to all BSA activities, including those related to advancement and Eagle Scout service projects. [Note: Always reference the online version, which is updated quarterly.]
- [ 7.0.3.1 ] — **The Buddy System and Certifying Completion**  
Youth members must not meet one-on-one with adults. Sessions with counselors must take place where others can view the interaction, or the Scout must have a buddy: a friend, parent, guardian, brother, sister, or other relative—or better yet, another Scout working on the same badge—along with him attending the session. When the Scout meets with the counselor, he should bring any required projects. If these cannot be transported, he should present evidence, such as photographs or adult certification. His unit leader, for example, might state that a satisfactory bridge or tower has been built for the Pioneering merit badge, or that meals were prepared for Cooking. If there are questions that requirements were met, a counselor may confirm with adults involved. Once satisfied, the counselor signs the blue card using the date upon which the Scout completed the requirements, or in the case of partials, initials the individual requirements passed.
- [ 7.0.3.2 ] — **Group Instruction**  
It is acceptable—and sometimes desirable—for merit badges to be taught in group settings. This often occurs at camp and merit badge midways or similar events. Interactive group discussions can support learning. The method can also be attractive to “guest experts” assisting registered and approved counselors. Slide shows, skits, demonstrations, panels, and various other techniques can also be employed, but as any teacher can attest, not everyone will learn all the material.

There must be attention to each individual’s projects and his fulfillment of *all* requirements. We must know that every Scout—actually and *personally*—completed them. If, for example, a requirement uses words like “show,” “demonstrate,” or “discuss,” then every Scout must do that. It is unacceptable to award badges on the basis of sitting in classrooms *watching* demonstrations, or remaining silent during discussions. Because of the importance of individual attention in the merit badge plan, group instruction should be limited to those scenarios where the benefits are compelling.