



Dr. Charles H. Townes

Webelos Scout Supernova Award Workbook



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

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

No one may add or subtract from the official requirements found in the Cub Scout Nova Awards Guidebook (Pub. 34032).

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

Scout'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

Send comments or suggestions for changes to the **requirements** for the **Nova Award** to: Program.Content@Scouting.Org

Although it is not a requirement, it is recommended that you earn at least two of the four Nova awards for Cub Scouts before earning the Dr. Charles H. Townes Supernova Award.
This Supernova award can be earned by Webelos Scouts like you.

- 1. Complete the following Webelos adventures: : Adventures in Science, Engineer, and Scouting Adventure.
 - Adventures in Science Engineer Scouting Adventure
- 2. Complete three of the following adventures: Build It, Building a Better World, Castaway, First Responder, Into the Wild, and Into the Woods.
 - Build I Building a Better World Castaway
 - First Responder , Into the Wild Into the Woods
- 3. Find interesting facts about Dr. Charles H. Townes using resources in your school or local library or on the Internet (with your parent's or guardian's permission and guidance).

Then discuss what you learn with your mentor, including answers to the following questions:

What very important award did Dr. Townes earn?

What was Dr. Townes' most famous invention?

- 4. Find out about five other famous scientists, technology innovators, engineers, or mathematicians approved by your mentor.

1.	
2.	
3.	
4.	
5.	

Discuss what you learned with your mentor.

- 5. Speak with your teacher(s) at school (or your parents if you are home-schooled) OR one of your Cub Scout leaders about your interest in earning the Webelos Scout Supernova award.

Person you spoke with:

Ask them why they think math and science are important in your education.

Discuss what you learn with your mentor.

- 6. Participate in a science project or experiment in your classroom or school.

Project you did:

Discuss this activity with your mentor.

7. Do ONE of the following:

A. Visit with someone who works in a STEM-related career.

Person you visited:

Discuss what you learned with your mentor.

B. Learn about a career that depends on knowledge about science, technology, engineering, or mathematics.

Career:

Discuss what you learned with your mentor.

- 8. Under the direct supervision of your mentor, do an experiment that shows how the scientific method (or scientific process) is used

Experiment Conducted:

Prepare a short report on the results of your experiment for your mentor.

- 9. Participate in a Nova- or other STEM-related activity in your Webelos Scout den or pack meeting that is conducted by a Boy Scout or Venturer who is working on his or her Supernova award. If this is not possible, participate in another Nova- or STEM-related activity in your den or pack meeting.

Activity you participated in: : Date

- 10. Submit an [application for the Webelos Scout Supernova award](#) to the district STEM 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.