

# Dr. Albert Einstein Supernova Workbook

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Venturers's name

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Address

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Telephone No.

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E-mail (optional)

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Unit No.

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District

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Local council

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Unit leader's name

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Address

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Telephone No.

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Mentor's name

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Address

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Telephone No.

**Requirement 1**

Earn either the Thomas Edison Supernova Award while a registered Boy Scout or the Wright Brothers Supernova Award while a registered Venturer

- Thomas Edison Supernova Award: Date Completed: \_\_\_\_\_
- Wright Brothers Supernova Award: Date Completed: \_\_\_\_\_

**Requirement 2**

Complete FOUR additional Supernova Activity Topics, one each of the four STEM areas. (Note, the intent is that upon completion of the Dr. Albert Einstein Supernova Award, the Venturer will have completed two Supernova Activity Topics in each of the four STEM areas for a total of eight.) *Please list dates for all eight Supernova Activity Topics.*

STEM Areas	Supernova Activity Topics	Date Completed
Science	Environmental Science: New Things from Old	
	Movie “Science”: Misconception, Misunderstanding, and Mistakes	
	Household Chemistry: Diet Coke and Mentos Explosions	
Technology	Energy Technology	
	Communication Technology	
	Entertainment Technology	
Engineering	Deconstruct and Analyze: Mechanical Designs	
	Build and Test: High Performance Paper Gliders	
	Design and Redesign: Egg Drop Contest	
Mathematics	From Simulations to Real Life: Modeling Bungee Jumping	
	Linking the Past to the Future: Modeling Old Faithful’s Next Eruption	
	A Paradox of Counting: Voting Methods and Fair Decisions	

**Requirement 3**

Create and propose a new Nova Awards topic for any program (Cub Scout, Webelos, Boys Scout, or Venturing) comparable to the existing Nova award topics at that program level. Prepare a written outline for this proposed Nova awards topic and submit it to your mentor.

*Approvals for Nova Award topic proposal:*

I developed a new Nova Awards topic for the (Cub Scout Webelos Boy Scout Venturing) program and presented an outline to my mentor.

Applicant’s Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Mentor’s Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Requirement 4**

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 challenging and should require a significant investment of time and effort on your part. (A guideline would be approximately 100 hours.) If your mentor is not a specialist in the area of your project or experiment, he or she will solicit assistance from a specialist to serve as a STEM consultant. Execute the project or experiment. Prepare a complete and well-documented written report AND an oral presentation. Present both to your Mentor and your local council Nova committee.

*Project Description (STEM area, brief overview, conclusions)*

*Approvals for Written Report:*

I have completed the written report on my project/experiment and presented it to my Mentor and local Council Nova committee

Applicant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Mentor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Nova Committee Chair Signature: \_\_\_\_\_ Date: \_\_\_\_\_

*Approvals for Oral Report:*

I have completed the oral report on my project/experiment and presented it to my Mentor and local Council Nova committee

Applicant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Mentor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Nova Committee Chair Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Requirement 5**

Submit a Supernova award application to the *national* Nova committee for approval. See <http://www.scouting.org/filestore/STEM/pdf/SupernovaApplication.pdf>.