

Wright Brothers Supernova Workbook - Option 1

For those who earned the Dr. Sally Ride Supernova Award as a registered Venturer

Venturers' s name

Address

Telephone No.

E-mail (optional)

Unit No.

District

Local council

Unit leader's name

Address

Telephone No.

Mentor's name

Address

Telephone No.

Requirement 1

Earn the Dr. Sally Ride Supernova Award while a registered Venturer.

Date Completed: _____

Requirement 2

Complete ONE additional Venturer Nova Award for a total of four. (Note these may be done at any time after becoming a Venturer.)

Venturer Nova Award	Date Completed <i>(please list all four dates)</i>
Launch!	
Power Up	
Hang On!	
Numbers Don't Lie	

Requirement 3

Using the guidelines found in the *Venturing STEM Explorations* chapter of the Venturer Nova Awards Guidebook, complete STEM explorations for four of the topics listed below. The four topics must be different from those completed while working on the Dr. Sally Ride Supernova Award, for a total of eight different topics. (Note these may be earned at any time after becoming a Venturer.) *Please list dates for all eight Venturing STEM Explorations.*

Exploration Topic	Date Earned	Exploration Topic	Date Earned
Animal Science		Geocaching	
Archaeology		Geology	
Architecture		Insect Study	
Astronomy		Inventing	
Automotive Maintenance		Mammal Study	
Aviation		Medicine	
Bird Study		Nature	
Chemistry		Nuclear Science	
Composite Materials		Oceanography	
Computers		Plant Science	
Dentistry		Pulp and Paper	
Drafting		Radio	
Electricity		Reptile and Amphibian Study	
Electronics		Robotics	
Energy		Scuba Diving	
Engineering		Soil and Water Conservation	
Environmental Science		Space Exploration	
Farm Mechanics		Surveying	
Fish and Wildlife Management		Veterinary Medicine	
Forestry		Weather	
Gardening		Welding	

Requirement 4

Complete TWO additional Supernova Activity Topics, one each in the two STEM areas NOT completed for the Dr. Sally Ride Supernova Award. (Note, the intent is that upon completion of the Wright Brothers Supernova Award, the Venturer will have completed one Supernova Activity Topic in each of the four STEM areas.) *Please list dates for all four 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 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. (Note, the intent is that upon completion of the Wright Brothers Supernova Award, the Venturer will have participated in two such events.)

STEM Competition or Workshop Description (nature of event, topics, date)

Approvals for STEM Competition or Workshop:

I participated in the above described STEM Competition/Workshop.

Applicant’s Signature: _____ Date: _____

Mentor’s Signature: _____ Date: _____

Requirement 6

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 permission from the appropriate unit leader. If a Cub Scout den or pack is not available, your presentation may be given to another youth group. (Note, the intent is that upon completion of the Wright Brothers Supernova Award, the Venturer will have completed two such presentations.)

Event Description (event name, date, time frame, audience, activity summary)

Approvals for Event Plans:

I have completed the plans for the above event and they have been approved by the appropriate individuals.

Applicant’s Signature: _____ Date: _____

Pack Representative’s Signature: _____ Date: _____

Mentor’s Signature: _____ Date: _____

Approvals for Completed Event:

This event was carried out by myself and respectfully submitted.

Applicant’s Signature: _____ Date: _____

Pack Representative’s Signature: _____ Date: _____

Mentor’s Signature: _____ Date: _____

Requirement 7

Research a scientific, technical, engineering, or mathematical breakthrough or invention of the past 100 years that has affected our society in a meaningful way and present your hypothesis on how it might further affect our society during your lifetime. Present either a 30-minute oral report or a 1500-word written report to your mentor.

Approvals for Research Activity:

I completed the research activity and

- made a 30-minute oral presentation to my Mentor.
- presented a 1500-word written report to my Mentor

Applicant’s Signature: _____ Date: _____

Mentor’s Signature: _____ Date: _____

Requirement 8

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