



STEM Nova

Troop 509 Path 1 November 16, 2020

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Outline – STEM Nova in BSA Scouts

•What is STEM? •Why STEM? •Nova and Supernova Awards? •509 Councilors and Mentors •509 – First Nova Module • First 509 Nova Module Content



What is STEM?

Science
Technology
Engineering
Mathematics

STEM/Nova

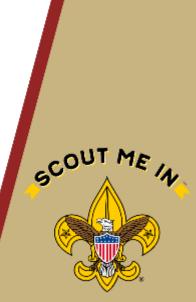
Why STEM?

- ✤ We live in a time of great opportunity.
- We must position ourselves at the cutting edge of scientific discovery and technological innovation.
- **c** Our country is falling behind in STEM.
- Many STEM professionals and educators believe the United States should do more to encourage students to enter STEM-related fields.
- You are the next generation of critical thinkers and innovators.

Councilors and Mentors

509 Nova Counselors

- John McArthur johnnyfisma@gmail.com
- **509 Supernova Mentors**
- Andrew Shapiro aashapiro@aol.com



Nova Modules









Science:

Technology:

Engineering:

Math:

Shoot! Let It Grow! Splash! Mendel's Minions Start YourWhoosh!Engines!Up and AwayHello WorldNext BigThing

Designed to Crunch



Start Your Engines Nova Module Content Fill out Start Your Engines Worksheet

1. Read or watch a documentary for 3 hours (examples)

60 Minutes Pure Aviation - https://www.youtube.com/watch?v=ad4xf2CwaV0

China's Megaprojects: Transportation - https://www.youtube.com/watch?v=IYJ4-fTDy_E

A History of Flight - https://www.youtube.com/watch?v=ty1jxXPJW00

California High Speed Trains - https://www.youtube.com/watch?v=h2K_loK_qk4

2. Complete a related merit badge

Automotive Maintenance Aviation Canoeing Cycling Drafting Electricity Energy Farm Mechanics Kayaking Motorboating Nuclear Science Programming Railroading Small-Boat Sailing Space Exploration Truck Transportation



Start Your Engines Nova Module Content 3. Do the following:

Discuss energy sources of the merit badges

Make a list of energy sources

Discuss energy alternatives

4. Design and build a working model vehicle

Make drawings

Include a power source (solar, wind, battery)

Test your model

Discuss with your counselor

5. Discuss with a councilor how technology affects your everyday life





