



# STEM

## The BSA's Newest Program

or is it?

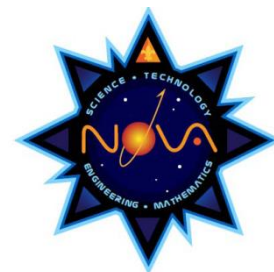


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What is STEM?

# Science Technology Engineering Math



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# Is STEM new?

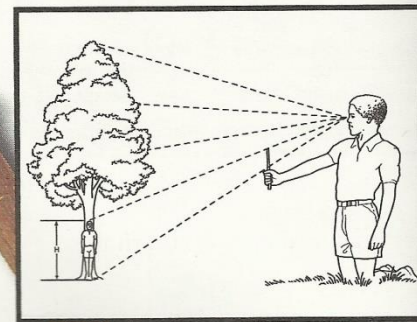


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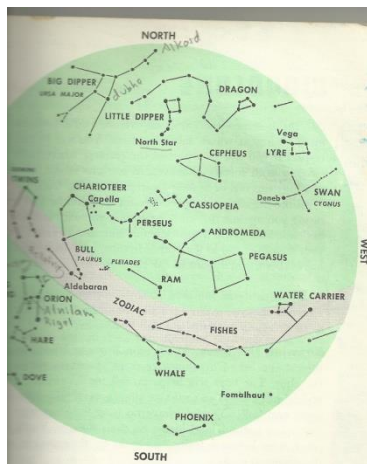


### MEASURING HEIGHTS

Here are some simple ways to measure a tree's height or to estimate the elevations of towers, waterfalls, cliffs, and walls:



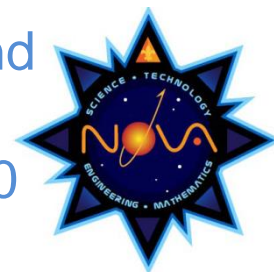
Stick
1. Ha yo ob tre an up fr
2. W ov of of yo w ba
3. N h





# Why STEM?

- Our nation is at a crossroads
- Our country is falling behind
  - In 2009, 34 percent of U.S. 8th graders were rated proficient or higher in a national math assessment.
  - In an international exam, U.S. high school students ranked 21st out of 30 industrialized nations in science and 25th in math.
  - Only 29% percent of U.S. high school graduates in 2010 were ready for college work in science
- STEM is the future





# The BSA Response

NOVA awards (7)

Supernova: 1 Cubs, 1 Webelos/Arrow of Light





# The BSA NOVA Award

NOVA Awards are designed to a way to make learning fun!

	Science	Technology	Engineering	Mathematics
Cub Scouts, Webelos	Science Everywhere Down & Dirty NOVA Wild! Out of this World	Tech Talk	Swing!	1-2-3 Go!



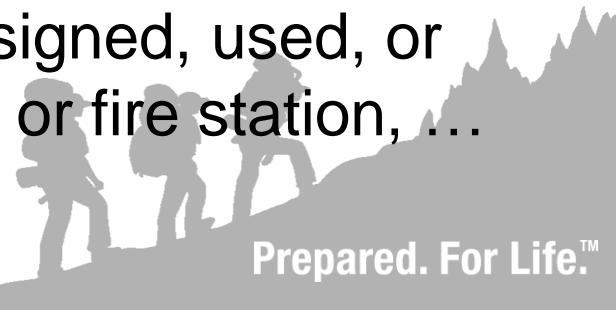
Requires earning a related adventure + additional science-related activities.





# Example: Tech Talk

1. Choose A or B or C and complete ALL the requirements.
  - A. Watch an episode or episodes (about one hour total) of a show about anything related to technology. Then :
    1. Make a list of at least two questions or ideas from what you watched.
    2. Discuss two of the questions or ideas with your counselor.
  - B. Complete ONE adventure from the following list. (see list)
  - C. Explore EACH of the following:
    - A. Look up a definition of the word *technology* and discuss the meaning with your counselor.
    - B. Find out how technology is used in EACH of these fields:
      1. Agriculture
      2. Manufacturing
      3. Transportation
      4. Medicine
      5. Entertainment
      6. Education
      7. Communication
      8. Space exploration
      9. Environmental protection
      10. Public safety
2. Complete ONE adventure from the following list. (see list)
3. Explore EACH of the following:
  - A. Look up a definition of the word *technology* and discuss the meaning with your counselor.
  - B. Find out how technology is used in EACH of these fields:
    1. Agriculture
    2. Manufacturing
    3. Transportation
    4. Medicine
    5. Entertainment
    6. Education
    7. Communication
    8. Space exploration
    9. Environmental protection
    10. Public safety
4. Visit a place where technology is being designed, used, or explained, e.g., an amusement park, a police or fire station, ...
  - A. Talk with someone in charge ...
  - B. Discuss with counselor







# The SUPERNOVA Award

1 – for Wolf and Bear cub scouts

1 – for Webelos and Arrow of Light scouts

Mentor completes application.



**Supernova Award Application**

Please print or type all information. Provide the month, day, and year for all dates.

**Part 1: Personal Data**

Candidate's name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip code \_\_\_\_\_

Phone \_\_\_\_\_ Date of birth \_\_\_\_\_

Email \_\_\_\_\_

Unit No. \_\_\_\_\_ Unit type:  Pack  Troop  Team  Crew  Ship

Council \_\_\_\_\_ Region \_\_\_\_\_

Supernova mentor's name \_\_\_\_\_ Phone \_\_\_\_\_

Email \_\_\_\_\_

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**Part 2: Award**

This is for a:  Cub Scout  Boy Scout  Varsity Scout  Venturer  Sea Scout

**Supernova Award**

Dr. Luis W. Alvarez (for Cub Scouts)

Dr. Charles H. Townes (for Webelos Scouts)

Dr. Bernard Harris (for Bronze Supernova—Boy Scouts or Varsity Scouts)

Thomas Edison (for Silver Supernova—Boy Scouts or Varsity Scouts)

Dr. Sally Ride Supernova (for Bronze Supernova—Venturers or Sea Scouts)

Wright Brothers Supernova (for Silver Supernova—Venturers or Sea Scouts)

For the Dr. Albert Einstein Supernova Award (for Gold Supernova—Venturers), use the Dr. Albert Einstein Supernova Award application, No. 512-054.



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# Administering STEM

- ✓ Cost
- ✓ Applications
- ✓ Resources
- ✓ Adult Support (next slide)





# Adult Support

## Nova counselor

- can be any registered adult age 21 or older.
- registered with position code 58, no fee is required.

## Supernova mentors

- must be 21 or older and
- be subject matter experts in a STEM field and
- registered as Supernova Mentor, position code 52.  
No fee is required.
- mentors must complete the Supernova Awards Mentor Information application. To district advancement chair.





# When/How to use STEM

Summertime

Family

Complement Adventure requirements  
that can be completed in 2 meetings

Involve other adults

With requirements for rank

After ranks are completed

Boys & parent(s) with special interests

Communicate with parents





# Think STEM!



[www.scouting.org/stem](http://www.scouting.org/stem)



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