



# Cub Scout and Webelos Nova Award 1-2-3 Go!

## Cub Scout and Webelos Nova award for Math

1. Choose A, B, or C and complete all requirements.
  - A. Watch an episode or episodes (about one hour total) of a show that involves math or physics. Then do the following:
    - i. Make a list of at least two questions or ideas from what you watched.
    - ii. Discuss two of the questions or ideas with your Counselor
  - B. Read (about one hour total) about anything that involves math or physics. Then do the following:
    - i. Make a list of at least two questions or ideas from what you read.
    - ii. Discuss two of the questions or ideas with your Counselor
  - C. Do a combination of reading and watching (about one hour total) about anything that involves math or physics. Then do the following:
    - i. Make a list of at least two questions or ideas from what you read and watched.
    - ii. Discuss two of the questions or ideas with your Counselor.

Requirement 1

I chose option:     A             B             C

Name(s) of things I watched and/or read: \_\_\_\_\_

- i. I made a list of at least two questions or ideas from what I read and watched.
- ii. I discussed the ideas and questions with my Counselor.

\_\_\_\_\_

Counselor's okay

\_\_\_\_\_

Date

2. Complete ONE adventure from the following list. (Choose one that you have not already earned.) Discuss with your counselor what kind of science, technology, engineering, or math was used in the adventure.

Requirement 2 (*circle the Adventure you complete*)

Wolf Cub Scouts

Code of the Wolf

Bear Cub Scouts

Robotics

Webelos Scouts

Game Design

- I discussed what kind of science, technology, engineering, or math was used in the Adventure.

\_\_\_\_\_

Counselor's okay

\_\_\_\_\_

Date



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3. Explore TWO options from A or B or C and complete ALL the requirements for those options. Keep your work to share with your counselor. The necessary information to make your calculations can be found in a book or on the Internet. You may work with your counselor on these calculations.

A. Choose two of the following places and calculate how much you would weigh there.

- i. On the sun or the moon
- ii. On Jupiter or Pluto
- iii. On a planet that you choose.

B. Choose ONE of the following and calculate its height.

- i. A tree
- ii. Your house
- iii. A building of your choice

C. Calculate the volume of air in your bedroom. Make sure your measurements have the same units—all feet or all inches—and show your work.

Requirement 3 (*choose two options from A, B and C*)

A.  i)     ii)     iii)    *choose **two** options from A*

B.  i)     ii)     iii)    *choose **one** option from B*

C    My bedroom has a volume of \_\_\_\_\_

\_\_\_\_\_

Counselor's okay

\_\_\_\_\_

Date



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### 4. Secret Codes

A. Look up, then discuss with your Counselor each of the following:

- i. Cryptography
- ii. At least three ways secret codes or ciphers are made.
- ii. How secret codes and ciphers relate to mathematics.

B. Design a secret code or cipher. Then do the following:

- i. Write a message in your code or cipher
- ii. Share your code or cipher with your Counselor.

Requirement 4 (*complete A and B*)

A.  i)  ii)  iii)

B.  i)  ii)

\_\_\_\_\_

Counselor's okay

\_\_\_\_\_

Date

### 5. Discuss with your Counselor how math affect your everyday life.

Requirement 5

I discussed with my Counselor how math affects my everyday life.

\_\_\_\_\_

Counselor's okay

\_\_\_\_\_

Date