



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

Cub Scout and Webelos Nova award for Math

This module is designed to help you explore how math affects your life each day.

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



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2. Complete ONE Adventure from the following list for your current rank
OR

Complete option A or B.

If you choose an Adventure, choose one you have not already earned. Discuss with your counselor what kind of science, technology, engineering, and math was used in the adventure or option.

Option A: Complete both of the following:

- a) Conduct an opinion survey through which you collect data to answer a question and then show your results with a chart or graph. For example, what is the favorite food of the scouts in your den (chart how many like pizza, how many like cookies, etc.).
- b) Conduct and keep a record of a coin toss probability experiment. Keep track of at least 25 tosses.

Option B: Complete both of the following:

- a) Interview four adults in different occupations and see how they use measurement in their job.
- b) Measure how tall someone is. Have them measure you. Complete in both inches and centimeters.

Requirement 2 (*circle the Adventure or Option you completed*)

<u>Wolf Cub Scouts</u>	<u>Bear Cub Scouts</u>	<u>Webelos Scouts</u>
Code of the Wolf	Robotics	Game Design
OR		
Option A <i>Complete both</i>		
<input type="checkbox"/> a) Opinion survey and show results.		
<input type="checkbox"/> b) Coin tosses: # of coin tosses _____ # of heads _____ # of tails _____		
OR		
Option B <i>Complete both</i>		
<input type="checkbox"/> a) Interview adults: 1) _____		
2) _____		
3) _____		
4) _____		
 <input type="checkbox"/> b) My height is: _____ inches or _____ centimeters		
Other person's height is: _____ inches or _____ centimeters		
I discussed what kind of science, technology, engineering, or math was used in the Adventure or Option.		
_____	_____	
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. (See the Helpful Links box for ideas.) You may work with your counselor on these calculations.

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

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

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

- A tree
- Your house
- 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)

<input type="checkbox"/> A. <input type="checkbox"/> i) <input type="checkbox"/> ii) <input type="checkbox"/> iii) choose two options from A
<input type="checkbox"/> B. <input type="checkbox"/> i) <input type="checkbox"/> ii) <input type="checkbox"/> iii) choose one option from B
<input type="checkbox"/> C My bedroom has a volume of _____

Counselor's okay _____ Date _____

4. Secret Codes

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

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

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

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

Requirement 4 (complete A and B)

<input type="checkbox"/> A. <input type="checkbox"/> i) <input type="checkbox"/> ii) <input type="checkbox"/> iii)
<input type="checkbox"/> B. <input type="checkbox"/> i) <input type="checkbox"/> ii)

Counselor's okay _____ Date _____



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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