CUB SCOUT NOVA AWARD - 1-2-3 GO! (MATHEMATICS)

Additional checkoff sheets and helps are available from ScouterMom.com.

This module is designed to help you explore how math affects your life each day.										
1. Choose A or B or C and complete ALL the requirements.										
1A. Watch an episode or episodes (about one hour total) of a show that involves math or physics. Then do the following:										
1A-1. Make a list of at least two questions or ideas from what you watched.										
1A-2. Discuss two of the questions or ideas with your counselor.										
1B. Read (about one hour total) about anything that involves math or physics. Then do the following:										
1B-1. Make a list of at least two questions or ideas from what you read.										
1B-2. Discuss two of the questions or ideas with your counselor.										
1C. Do a combination of reading and watching (about one hour total) about anything that involves math or physics. Then do the following:										
1C-1. Make a list of at least two questions or ideas from what you read and watched.										
1C-2. Discuss two of the questions or ideas with your counselor.										
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.										
2-Adventure 1. Code of the Wolf (Wolf)										
2-Adventure 2. Robotics (Bear)										
2-Adventure 3.Game Design (Webelos)										
Option A: Complete both of the following:										
Option A (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.).										
Option A(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:										
Option B(a) Interview four adults in different occupations and see how they use measurement in their job.										
Option B(b) Measure how tall someone is. Have them measure you. Complete in both inches and centimeters.										

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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.										
3A. Choose TWO of the following places and calculate how much you would weigh there.										
3A-1. On the sun or the moon										
3A-2. On Jupiter or Pluto										
3A-3. On a planet that you choose										
3B. Choose ONE of the following and calculate its height:										
3B-1. A tree										
3B-2. Your house										
3B-3. A building of your choice										
3C. 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.										
4. Secret Codes										
4A. Look up, then discuss with your counselor each of the following:										
4A-1. Cryptography										
4A-2. At least three ways secret codes or ciphers are made										
4A-3. How secret codes and ciphers relate to mathematics										
4B. Design a secret code or cipher. Then do the following:										
4B-1. Write a message in your code or cipher.										
4B-2. Share your code or cipher with your counselor.										
5. Discuss with your counselor how math affects your everyday life.										
Completed										
Presented										