



Boy Scout Nova Award Start Your Engines!



Boy Scout Nova Award for Technology

1. Choose A or B or C and complete ALL the requirements.
 - A. Watch about three hours total of technology-related shows or documentaries that involve transportation or transportation technology. 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 three hours total) about transportation or transportation technology. 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 three hours total). 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: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	
Name(s) of things I watched and/or read: _____	
<input type="checkbox"/> i. I made a list of at least two questions from what I read and watched.	
<input type="checkbox"/> ii. I discussed the ideas and questions with my Counselor	
_____	_____
Counselor's okay	Date

2. Complete ONE merit badge from the following list. (Choose one that you have not already used toward another Nova award.) After completion, discuss with your counselor how the merit badge you earned uses technology.

- | | | |
|------------------------|-----------------|----------------------|
| Automotive Maintenance | Electricity | Railroading |
| Aviation | Energy | Small-Boat Sailing |
| Canoeing | Farm Mechanics | Space Exploration |
| Cycling | Motor Boating | Truck Transportation |
| Drafting | Nuclear Science | |

Requirement 2

I completed the Merit Badge for _____	

_____	_____
Counselor's okay	Date



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3. Do ALL of the following:
- A. Use the requirements from the above list of merit badges:
 - i. Tell your counselor the energy source(s) used in these merit badges.
 - ii. Discuss the pros and cons of each energy source with your counselor.

 - B. Make a list of sources of energy that may be possible to use in transportation.

 - C. With your counselor:
 - i. Discuss alternative sources of energy
 - ii. Discuss the pros and cons of using alternative energy sources.

Requirement 3

- | | |
|-----------------------------|---|
| <input type="checkbox"/> A. | <input type="checkbox"/> i. I told my counselor about the energy sources use in the merit badges. |
| | <input type="checkbox"/> ii. I discussed the pros and cons of each energy source. |
| <input type="checkbox"/> B. | I made a list of sources of energy used in transportation. |
| <input type="checkbox"/> C. | <input type="checkbox"/> i. I discussed alternative sources of energy. |
| | <input type="checkbox"/> ii. I discussed the pros and cons of using alternative energy sources. |

Counselor's okay

Date



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4. Design and build a working model vehicle (not from a kit).
 - A. Make drawings and specifications of your model vehicle before you begin to build.
 - B. Include one of the following energy sources to power your vehicle (do not use gasoline or other combustible fuel source): solar power, wind power, or battery power.
 - C. Test your model. Then answer the following questions:
 - i. How well did it perform?
 - ii. Did it move as well as you thought it would?
 - iii. Did you encounter problems? How can these problems be corrected?
 - D. Discuss with your counselor:
 - i. Any difficulties you encountered in designing and building your model.
 - ii. Why you chose a particular energy source.
 - iii. Whether your model met your specifications.
 - iv. How you would modify your design to make it better.

Requirement 4

<p><input type="checkbox"/> A. I made drawings and specifications of my model before I began building it.</p> <p><input type="checkbox"/> B. I included _____ power in my model.</p> <p><input type="checkbox"/> C. I tested my model.</p> <p style="margin-left: 20px;"><input type="checkbox"/> i. I evaluated how it performed.</p> <p style="margin-left: 20px;"><input type="checkbox"/> ii. It moved <input type="checkbox"/> better than <input type="checkbox"/> as good as <input type="checkbox"/> not as good as I thought it would.</p> <p style="margin-left: 20px;"><input type="checkbox"/> iii. I <input type="checkbox"/> did <input type="checkbox"/> did not encounter problems.</p> <p style="margin-left: 40px;">Explain: _____</p> <p><input type="checkbox"/> D. I discussed with my Counselor:</p> <p style="margin-left: 20px;"><input type="checkbox"/> i. Difficulties encountered in designing and building my model.</p> <p style="margin-left: 20px;"><input type="checkbox"/> ii. Why I chose that particular energy source.</p> <p style="margin-left: 20px;"><input type="checkbox"/> iii. If my model met my specifications.</p> <p style="margin-left: 20px;"><input type="checkbox"/> iv. How I would modify my design to make it better.</p> <p style="margin-left: 40px;">_____</p> <p style="margin-left: 40px;">Counselor's okay _____</p> <p style="margin-left: 40px;">Date</p>
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5. Discuss with your counselor how technology affects your everyday life.

Requirement 5

<p>I discussed with my Counselor how technology affects my everyday life.</p> <p style="margin-left: 40px;">_____</p> <p style="margin-left: 40px;">Counselor's okay _____</p> <p style="margin-left: 40px;">Date</p>
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