



Power Up



Venturer Nova Award Workbook

This workbook can help you but you still need to read the Venturer Nova Awards Guidebook.

This Workbook can help you organize your thoughts as you prepare to meet with your counselor.

You still must satisfy your counselor that you can demonstrate each skill and have learned the information.

You should use the work space provided for each requirement to keep track of which requirements have been completed, and to make notes for discussing the item with your counselor, not for providing full and complete answers.

If a requirement says that you must take an action using words such as "discuss", "show", "tell", "explain", "demonstrate", "identify", etc, that is what you must do.

Counselors may not require the use of this or any similar workbooks.

No one may add or subtract from the official requirements found in the Venturer Nova Awards Guidebook (Pub. 34031).

The requirements were issued in 2012 • This workbook was updated in June 2018.

Venturer's Name: _____ Unit: _____

Counselor's Name: _____ Counselor's Phone No.: _____



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Please submit errors, omissions, comments or suggestions about this **workbook** to: Workbooks@USScouts.Org

Send comments or suggestions for changes to the **requirements** for the **Nova Award** to: Program.Content@Scouting.Org

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

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.

What was watched?	Date	Start Time	Duration

Some examples include—but are not limited to—shows found on PBS ("NOVA"), Discovery Channel, Science Channel, National Geographic Channel, TED Talks (online videos), and the History Channel. You may choose to watch a live performance or movie at a planetarium or science museum instead of watching a media production. You may watch online productions with your counselor's approval and under your parent's supervision.

Then do the following:

- 1. Make a list of at least two questions or ideas from each show.

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2. Discuss two of the questions or ideas with your counselor.

1.

2.

2. Choose ONE STEM field of interest from the following list. Complete [ALL the requirements for a Venturing STEM exploration](#) in that field.. (If you have already completed a Venturing STEM exploration in one of these fields, please choose a different field for this award.)

- | | | |
|---|--|---|
| <input type="checkbox"/> Automotive Maintenance | <input type="checkbox"/> Electricity | <input type="checkbox"/> Railroading |
| <input type="checkbox"/> Aviation | <input type="checkbox"/> Energy | <input type="checkbox"/> Small-Boat Sailing |
| <input type="checkbox"/> Canoeing | <input type="checkbox"/> Farm Mechanics | <input type="checkbox"/> Space Exploration |
| <input type="checkbox"/> Cycling | <input type="checkbox"/> Motorboating | <input type="checkbox"/> Truck Transportation |
| <input type="checkbox"/> Drafting | <input type="checkbox"/> Nuclear Science | |

3. Choose A or B and complete ALL the requirements.

A. Using the requirements from the above list of STEM explorations.

1. Tell your counselor the energy source(s) used in these STEM explorations

2. 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

- 1. Discuss alternative sources of energy.

- 2. Discuss the pros and cons of using alternative energy sources.

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.
 - Solar Power
 - Wind Power
 - Battery Power

- C. Test your model.

Then answer the following questions:

- 1. How well did it perform?

- 2. Did it move as well as you thought it would?

3. Did you encounter problems?

How can these problems be corrected?

D. Discuss with your counselor

1. Any difficulties you encountered in designing and building your model

2. Why you chose a particular energy source

3. Whether your model met your specifications

