# VENTURING NOVA AWARD - POWER UP (TECHNOLOGY)

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

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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. | | | | | | | | | | |
| 1A. Watch about three hours total of technology-related shows or documentaries that involves transportation or transportation technology. Then do the following: | | | | | | | | | | |
| 1A-1. Make a list of at least two questions or ideas from each show. | | | | | | | | | | |
| 1A-2. Discuss two of the questions or ideas with your counselor. | | | | | | | | | | |
| 1B. Read (about three hours total) about transportation or transportation technology. Then do the following: | | | | | | | | | | |
| 1B-1. Make a list of at least two questions or ideas from each article. | | | | | | | | | | |
| 1B-2. Discuss two of the questions or ideas with your counselor. | | | | | | | | | | |
| 1C. Do a combination of reading and watching (about three hours total). Then do the following: | | | | | | | | | | |
| 1C-1. Make a list of at least two questions or ideas from each article or show. | | | | | | | | | | |
| 1C-2. Discuss two of the questions or ideas with your counselor. | | | | | | | | | | |
| 2. Choose ONE STEM field of interest from the following list. Complete ALL the requirements for a Venturing STEM exploration in that field. Venturing exploration topics. (If you have already completed a Venturing STEM exploration in one of these fields, please choose a different field for this award.) | | | | | | | | | | |
| 2A. Automotive Maintenance | | | | | | | | | | |
| 2B. Aviation | | | | | | | | | | |
| 2C. Canoeing | | | | | | | | | | |
| 2D. Cycling | | | | | | | | | | |
| 2E. Drafting | | | | | | | | | | |
| 2F. Electricity | | | | | | | | | | |
| 2G. Energy | | | | | | | | | | |
| 2H. Farm Mechanics | | | | | | | | | | |
| 2I. Motorboating | | | | | | | | | | |
| 2J. Nuclear Science | | | | | | | | | | |
| 2K. Railroading | | | | | | | | | | |
| 2L. Small-Boat Sailing | | | | | | | | | | |
| 2M. Space Exploration | | | | | | | | | | |
| 2N. Truck Transportation | | | | | | | | | | |
| 3. Do ALL of the following. | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| This module is designed to help you explore how technology affects your life each day. | | | | | | | | | | |
| 3A. Using the requirements from the above list of STEM explorations: | | | | | | | | | | |
| 3A-1. Tell your counselor the energy source(s) used in these STEM explorations. | | | | | | | | | | |
| 3A-2. Discuss the pros and cons of each energy source with your counselor. | | | | | | | | | | |
| 3B. Make a list of sources of energy that may be possible to use in transportation. | | | | | | | | | | |
| 3C. With your counselor: | | | | | | | | | | |
| 3C-1. Discuss alternative sources of energy. | | | | | | | | | | |
| 3C-2. Discuss the pros and cons of using alternative energy sources. | | | | | | | | | | |
| 4. Design and build a working model vehicle (not from a kit). | | | | | | | | | | |
| 4A. Make drawings and specifications of your model vehicle before you begin to build. | | | | | | | | | | |
| 4B. 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. | | | | | | | | | | |
| 4C. Test your model. Then answer the following questions: | | | | | | | | | | |
| 4C-1. How well did it perform? | | | | | | | | | | |
| 4C-2. Did it move as well as you thought it would? | | | | | | | | | | |
| 4C-3. Did you encounter problems? How can these problems be corrected? | | | | | | | | | | |
| 4D. Discuss with your counselor: | | | | | | | | | | |
| 4D-1. Any difficulties you encountered in designing and building your model | | | | | | | | | | |
| 4D-2. Why you chose a particular energy source | | | | | | | | | | |
| 4D-3. Whether your model met your specifications | | | | | | | | | | |
| 4D-4. How you would modify your design to make it better | | | | | | | | | | |
| 5. Discuss with your counselor how technology affects your everyday life. | | | | | | | | | | |
| | | | | | | | | | | |
| Completed | | | | | | | | | | |
| Presented | | | | | | | | | | |