VENTURING NOVA AWARD - POWER UP (TECHNOLOGY)

Additional requirement 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.

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.