



Execute!



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 2018 • This workbook was updated in March 2019.

Venturer's Name: _____ Unit: _____

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



<http://www.USScouts.Org> • <http://www.MeritBadge.Org>

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 programming affects everyday life.

1. Choose A or B or C and complete ALL the requirements.

A. Watch not less than three hours total of shows or documentaries related to programming, robotics, the Internet, networking, social media and digital freedom, cyber security, electronics.

What was watched?	Date	Start Time	Duration

Then do the following:

1. Make a list of at least five questions or ideas from the shows you watched.

1.	
2.	
3.	
4.	
5.	

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f. Java and Netbeans IDE

2. With your counselor, discuss what aspects of your app make it easy for users to use. Discuss what modifications could be made to make the app better and easier to use.

3. Show your app to your counselor and explain how you created it.

B. Investigate a new object-oriented programming language.

1. Use an online program for learning programming to study a language of your choice. An example of such a language is Scratch or Javascript or Squeak.

2. After experimenting with the language, create a mini-video or game that encourages teenagers to join Venturing/Sea Scouting or tells the story of your favorite Scouting memory.

3. Show your program to your counselor and describe how you made it.

C. Create a page in HTML.

1. Take on online course to learn about HTML.

2. After taking the course, create an basic HTML page for your crew or ship.

3. Show your HTML page to your counselor and explain how you created it.

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- D. Find an old cellphone, computer, or other digital electronic and take it apart (ask your parents for permission first!).

1. Identify three pieces to research.

2. Figure out what they do and how they contribute to the machine.

3. Report your findings to your counselor.

- E. Investigate how the internet works.

1. Do some research and describe the history of the internet, its original purpose, and the technical information about how your device uses the internet.
2. Find out how do search engines work. Research how large databases, like Google and Bing, manage and distribute their data to internet users.
3. Share your research and timeline with your counselor.

- F. Research the importance of cybersecurity.

1. Create a poster or presentation describing the types of malicious computer attacks, at least six common cyber and physical attacks, and how to prevent cyber attacks. Share your poster with your crew or ship.
2. Explain the importance of cybersecurity with your counselor.

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- G. Research the Agile Design Process.
 - 1. With a group of friends, use the skills that you learned to build a tower of plastic cups as tall possible without human or other external support.
 - 2. Agile Design = Build/Code, Test, Assess, Return to Code or Deliver; students learn the importance of testing to make sure their tower will stand in small increments instead of waiting until the end to let it go)
- H. Investigate the components of Digital Citizenship.
 - 1. Locate reputable websites to cultivate a list of practices that show healthy digital citizenship.
 - 2. Make a public service video that helps make others aware of good digital citizenship.
 - 3. Share your video with your crew/ship and counselor.
- 4. Visit and Meet! Choose ONE option and interview a person involved with the field. If possible, visit them in that environment and see what they do.
 - A. Local gaming or programming company
 - B. Computer Science/Engineering department at a local university
 - C. Professionals within the fields of programming, computer science, cybersecurity, or information technology
 - D. A Hackathon or Robotics competition

Write down at least five questions to ask and share what you learn with your counselor.

1.	
2.	
3.	
4.	
5.	

- 5. Discuss with your counselor how programming affects your everyday life, and what you have learned by working on this Nova.

When working on Nova and Supernova awards, Scouts and Scouters should be aware of some vital information in the current edition of the *Guide to Advancement* (BSA publication 33088). Important excerpts from that publication can be downloaded from <http://usscouts.org/advance/docs/GTA-Excerpts-nova.pdf>. You can download a complete copy of the *Guide to Advancement* .from <http://www.scouting.org/filestore/pdf/33088.pdf>.