



Science Everywhere

Cub Scout Nova Award Workbook



This workbook can help you but you still need to read the Cub Scout 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 Cub Scout Nova Awards Guidebook (Pub. 34032 – SKU 614935).
The requirements were revised in 2017 • This workbook was updated in August 2017.

Scout'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 science affects your life each day

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

A. Watch an episode or episodes (about one hour total) of a show about anything related to science.

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 what you watched.

1.

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2.

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

1.

2.

B. Read (about one hour total) about anything related to science.

What was read?	Date	Start Time	Duration

Books on many topics may be found at your local library. Examples of magazines include but are not limited to *Odyssey*, *KIDS DISCOVER*, *National Geographic Kids*, *Highlights*, and *OWL* or owlkids.com.

Then do the following:

1. Make a list of at least two questions or ideas from what you read.

1.

2.

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

1.	
2.	

C Do a combination of reading and watching (about one hour total) about anything related to science.

What was watched or read?	Date	Start Time	Duration

Then do the following:

1. Make a list of at least two questions or ideas from what you read and watched.

1.	
2.	

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

1. _____

2. _____

2. Complete ONE adventure from the following list for your current rank or complete option A or B. (If you choose an Adventure, choose one you have not already earned.)

Wolf Cub Scouts

- Collections and Hobbies
- Digging in the Past
- Germs Alive
- Grow Something

Bear Cub Scouts

- A Bear Goes Fishing
- Bear Picnic
- Critter Care

Webeles Scouts

- Earth Rocks
- Maestro

- Option A: Complete all of the following:
 - a. Explain the scientific method to your adult partner.
 - b. Use the scientific method in a simple science project. Explain the results to an adult.
 - c. Talk to a scientist about why he or she became a scientist.
- Option B: Complete all of the following:
 - a. Show how to orient a map. Find three landmarks on the map.
 - b. Make a simple compass with a magnet and pin.
 - c. Show how a compass works.
 - d. Use a compass on an orienteering activity with at least 3 stops.

Discuss with your counselor what kind of science, technology, engineering, and math was used in the adventure or option.

3. Act like a scientist! Explore EACH of the following:

A. With your counselor, choose a question you would like to investigate.

Here are some examples only (you may get other ideas from your adventure activities):

1. Why do rockets have fins? Is there any connection between the feathers on arrows and fins on rockets?
2. Why do some cars have spoilers? How do spoilers work?
3. If there is a creek or stream in your neighborhood, where does it go? Does your stream flow to the Atlantic or the Pacific ocean?
4. Is the creek or stream in your neighborhood or park polluted?
5. What other activity can you think of that involves some kind of scientific questions or investigation?

With your parent's or guardian's permission and assistance, you may want to use an online mapping application to follow the streams and rivers to the ocean. Keep track of the names of the streams, lakes, and rivers connecting your stream to the ocean. Is it possible for you to find out the name of your watershed? **Paddle-to-the-Sea** by Holling C. Holling is a fun book on this topic.

You can do a stream sample to find out what kinds of things are living in the water and under the rocks. Some things can survive polluted water; others can live only in clean water. You can discover if a stream is polluted by finding out what lives there.

What question would you like to investigate?

B. With your counselor, use the scientific method/process to investigate your question. Keep records of your question, the information you found, how you investigated, and what you found out about your question.

You may do 3B with another Cub Scout if you would like, but you need to do and record your own work.

C. Discuss your investigation and findings with your counselor.

4. Visit a place where science is being done, used, or explained, such as one of the following: zoo, aquarium, water treatment plant, observatory, science museum, weather station, fish hatchery, or any other location where science is being done, used, or explained.

- | | |
|--|--|
| <input type="checkbox"/> Zoo | <input type="checkbox"/> Aquarium |
| <input type="checkbox"/> Water Treatment Plant | <input type="checkbox"/> Observatory |
| <input type="checkbox"/> Science Museum | <input type="checkbox"/> Weather Station |
| <input type="checkbox"/> Fish Hatchery | <input type="checkbox"/> Other Location: _____ |

- A. During your visit, talk to someone in charge about science.
- B. Discuss with your counselor the science done, used, or explained at the place you visited.

5. Discuss with your counselor how science affects your everyday life.

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>.