



Swing!

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 issued 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 engineering and simple machines called levers affect 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 motion or machines.

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 motion or machines.

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 motion or machines.

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

☐ Motor Away

☐ Paws of Skill

Bear Cub Scouts

☐ Baloo the Builder!

☐ A Bear Goes Fishing

Webelos Scouts

☐ Adventures in Science

☐ Engineer

- ☐ Option A: With your parent's permission, take an old or broken household or mechanical item, break it down into its component pieces, and identify the purpose of five parts. Suggested items include a keyboard, floppy disk, telephone, VCR, tape deck, bicycle, people counter, printer or similar item. Make sure to use appropriate safety precautions.

- ☐ Option B: Participate in two sports, either as an individual or part of a team, and identify the levers used in each sport.

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

3. Explore EACH of the following.

A. Levers

1. Make a list or drawing of the three types of levers. (A lever is one kind of simple machine.)

1.

2.

3.

2. Show

1. How each lever works

☐ Lever 1☐ Lever 2☐ Lever 3☐ 2. How the lever in your design will move something

3. The class of each lever

4. Why we use levers

	Class	Why we use this type of lever
1.		
2.		
3.		

B. On your own, design, including a drawing, sketch, or model, ONE of the following:

☐ 1. A playground fixture that uses a lever☐ 2. A game or sport that uses a lever☐ 3. An invention that uses a lever

Be sure to show how the lever in your design will move something.

- C. Discuss your findings with your counselor

[illegible]

4. Do the following:

- A. Visit a place that uses levers, such as a playground, carpentry shop, construction site, restaurant kitchen, or any other location that uses levers.

Visitations to places like carpentry shops, construction sites, restaurant kitchens, etc. will require advance planning by the counselor. The counselor should call ahead to make arrangements and make plans to have appropriate supervision of all Scouts.

The site will very likely have rules and instructions that must be followed. The counselor should help ensure that all the participants are aware of and follow those rules. This may include safety procedures and other instructions.

Place visited: _____

- B. Discuss with your counselor the equipment or tools that use levers in the place you visited.

[illegible]

5. Discuss with your counselor how engineering and simple machines affect 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>.