



Adventures in Science

Webelos Adventure Workbook



No one may add or subtract from the official requirements found in the *Cub Scout Webelos Handbook*
Requirements were revised in December 2016. This workbook was updated in October, 2018..

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Please submit errors, omissions, comments or suggestions about this **checklist** to: Workbooks@USScouts.Org
Comments or suggestions for changes to the **requirements** should be sent to: Advancement.Team@Scouting.Org

Cub Scout's Name: _____ Pack No. : _____

Source for requirements: Cub Scout Webelos Handbook (#34754 - SKU 646430)

This adventure is an elective adventure which can be used to earn the Webelos and Arrow of Light Badges.

Complete the following requirements.

- 1. An experiment is a "fair test" to compare possible explanations. Draw a picture of a fair test that shows what you need to do to test a fertilizer's effects on plant growth.

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- 2. Visit a museum, a college, a laboratory, an observatory, a zoo, an aquarium, or other facility that employs scientists.

Where did you visit? _____

- Prepare three questions ahead of time, and talk to a scientist about his or her work.

1. _____

2. _____

3. _____

- 3. Complete any four of the following:

- a. Carry out the experiment you designed for requirement 1.

- b. . If you completed 3a, carry out the experiment again, but change the independent variable.

- Report what you learned about how changing the variable affected plant growth.

- c. **Build a model solar system. Chart the distances between the planets so that the model is to scale.**
- Use what you learned from this requirement to explain the value of making a model in science.**

- d. **With adult supervision, build and launch a model rocket.**
- Use the rocket to design a fair test to answer a question about force or motion.**

- e. **Create two circuits of three light bulbs and a battery. Construct one as a series circuit and the other as a parallel circuit.**
- f. **Study the night sky. Sketch the appearance of the North Star (Polaris) and the Big Dipper (part of the Ursa Major constellation) over at least six hours (which may be spread over several nights). Describe what you observed, and explain the meaning of your observations.**

- g. With adult assistance, explore safe chemical reactions with household materials.
- Using two substances, observe what happens when the amounts of the reactants are increased.
- h. Explore properties of motion on a playground.
- Does the weight of a person affect how fast they slide down a slide or how fast a swing moves?
- Design a fair test to answer one of those questions.

- i. Read a biography of a scientist.

Who did you read about? _____

- Tell your den leader or the other members of your den what the scientist was famous for and why his or her work is important.

When working on Cub Scout Advancements and awards, Cub Scouts, their parents, 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-Cub.pdf>.
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