



# Engineer

## Webelos Activity Workbook

This workbook is not required but can help you with this activity badge. Your Webelos Den Leader approves your work. No one can add or subtract from the requirements. Webelos Workbooks and much more are below: [Online Resources](#).

Send comments to the workbook developer: [craig@craiglincoln.com](mailto:craig@craiglincoln.com). Workbook updated: April 2008.

Scout's Name: \_\_\_\_\_ Pack: \_\_\_\_\_ Activity Badge Counselor: \_\_\_\_\_

### Do both of these:

1. Talk to an engineer, surveyor, or architect in your area about the different occupations in engineering. Create a list that tells what they do.

---

---

---

---

---

---

---

---

---

---

2. Draw a floor plan of your house. Include doors, windows, and stairways.

### And do four of these:

3. Visit a construction job. Look at a set of plans used to build the facility or product. Tell your Webelos den leader about these. (Get permission before you visit.) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Visit a civil engineer or surveyor to learn how to measure the length of a property line. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Explain how property lines are determined. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Tell about how electricity is generated \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

and then gets to your home. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Construct a simple working electrical circuit using a flashlight battery, a switch, and a light. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Make drawings of three kinds of bridges and explain their differences. Construct a model bridge of your choice.

- 8. Make a simple crane using a block and tackle and explain how the block and tackle is used in everyday life. \_\_\_\_\_  
\_\_\_\_\_
- 9. Build a catapult and show how it works. \_\_\_\_\_
- 10. While you are a Webelos Scout, earn the Cub Scout Academics belt loop for Mathematics. *(All boys may earn belt loops and pins more than once...Cub Scout Academics and Sports Program Guide p. 4)* \_\_\_\_\_

**Online Resources** *(Use any Internet resource with caution and only with your parent's or guardian's permission.)*

Engineer is helping to prepare you for [Engineering](#), [Architecture](#), and [Electricity](#) Merit Badges.

**Webelos Activity Badge Workbooks:** ▶ [usscouts.org](http://usscouts.org) -or- ▶ [meritbadge.org](http://meritbadge.org)

**Cub Scout Academics and Sports Workbooks:** ▶ [meritbadge.org](http://meritbadge.org) -or- ▶ [Academics](#) / [Sports](#)

**Boy Scouts of America:** <http://www.scouting.org/> ▶ [Guide to Safe Scouting](#) ▶ [Age-Appropriate Guidelines for Activities](#)  
▶ [Scout](#) ▶ [Tenderfoot](#) ▶ [Second Class](#) ▶ [First Class](#) ▶ [Rank Videos](#)

**Boy Scout Merit Badge Workbooks:** [usscouts.org](http://usscouts.org) -or- [meritbadge.org](http://meritbadge.org) ▶ **Merit Badge Books:** [www.scoutstuff.org](http://www.scoutstuff.org)

Amer. Institute of Chemical Eng.: <http://www.aiche.org>

Amer. Soc. of Civil Eng.: <http://www.asce.org>

ASME (Amer. Soc. of Mechanical Eng.): <http://www.asme.org>

Institute of Electrical and Electronics Eng: <http://www.ieee.org>

Jet Propulsion Laboratory: <http://www.jpl.nasa.gov>

Junior Engineering Technical Soc.: <http://www.jets.org>

Kennedy Space Center: <http://www.ksc.nasa.gov>

NASA: <http://www.nasa.gov>

Smithsonian National Air and Space Museum: <http://www.nasm.si.edu>