



Drafting

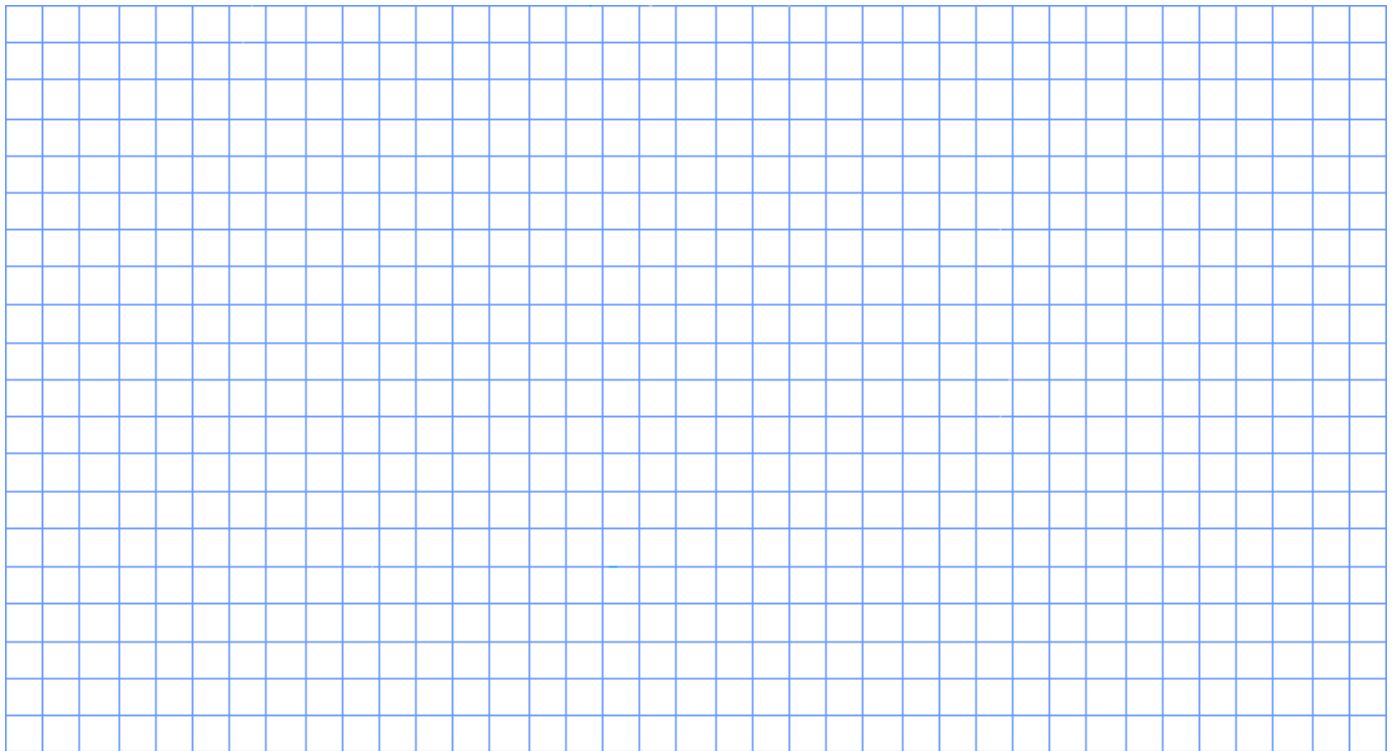
Merit Badge Workbook

This workbook can help you but you still need to read the merit badge pamphlet (book). No one can add or subtract from the Boy Scout Requirements #33215. Merit Badge Workbooks and much more are below: [Online Resources](#).
Workbook developer: craig@craiglincoln.com. Requirements revised: 1993, Workbook updated: April 2008.

Scout's Name: _____ Unit: _____

Counselor's Name: _____ Counselor's Ph #: _____

1. Format TWO sheets of drawing paper with proper borders and title blocks - one for your manual project (see requirement 2) and one for your lettering project (see requirement 5).
 - a. Make a rough sketch of your project drawings to determine the correct size of paper to format.



- b. Using either single-stroke vertical or slant Gothic lettering, fill in all important information in the title block sections of the formatted paper. _____
2. Using the formatted sheet of paper you prepared for your manual project, produce a pencil drawing as it would be used for manufacturing. _____

Fill in all title block information. _____

The manual drawing may be any one of the following drawing types:

- a. **Architectural:** Make a scale drawing of an architectural project. The architectural drawing may be a floor plan, electrical, plumbing, or mechanical service plan; elevation plan; or landscaping plan. Use an architect's scale and show dimensions to communicate the actual size of features. Include any important notes and considerations necessary for construction. _____

b. **Mechanical:** Make a scale drawing of some mechanical device or interesting object. The mechanical drawing may be of the orthographic or isometric style. Use an engineer's scale and show dimensions to communicate the actual size of features. Include any important notes and considerations necessary for construction. _____

c. **Electrical:** Draw a simple schematic of a radio or electronic circuit. Properly print a bill of materials including all of the major electrical components used in the circuit. Use standard drawing symbols for the electronic components. _____

3. Produce a computer-aided design (CAD) drawing as it would be used in manufacturing. Fill in all title block information. The CAD drawing may be any one of the following drawing types:

a. **Architectural:** Make a scale drawing of an architectural project. The architectural drawing may be a floor plan, electrical, plumbing, or mechanical service plan; elevation plan; or landscaping plan. Use an architect's scale and show dimensions to communicate the actual size of features. Include any important notes and considerations necessary for construction. _____

b. **Mechanical:** Make a scale drawing of some mechanical device or interesting object. The mechanical drawing may be of the orthographic or isometric style. Use an engineer's scale and show dimensions to communicate the actual size of features. Include any important notes and considerations necessary for construction. _____

c. **Electrical:** Draw a simple schematic of a radio or electronic circuit. Properly print a bill of materials including all of the major electrical components used in the circuit. Use standard drawing symbols for the electronic components. _____

4. Discuss with your counselor how fulfilling requirements 2 and 3 differed from each other. _____

Tell about the benefits derived from using CAD for requirement 3. _____

Include in your discussion the software you used as well as other software options that are available. _____

7. Find out about three career opportunities in drafting. _____

Pick one _____
and find out about the education, training, and experience required for this profession. _____

Discuss this with your counselor, and explain why this profession might interest you. _____

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

Boy Scouts of America: ▶ scouting.org ▶ [Guide to Safe Scouting](#) ▶ [Age-Appropriate Guidelines](#) ▶ [Safe Swim Defense](#)
▶ [Scout](#) ▶ [Tenderfoot](#) ▶ [Second Class](#) ▶ [First Class](#) ▶  [Rank Videos](#) ▶ [Safety Afloat](#)

Boy Scout Merit Badge Workbooks: usscouts.org -or- meritbadge.org **Merit Badge Books:** www.scoutstuff.org
[American Design Drafting Association International](#) [FBE online learning AutoCAD](#) - 2D tutorials