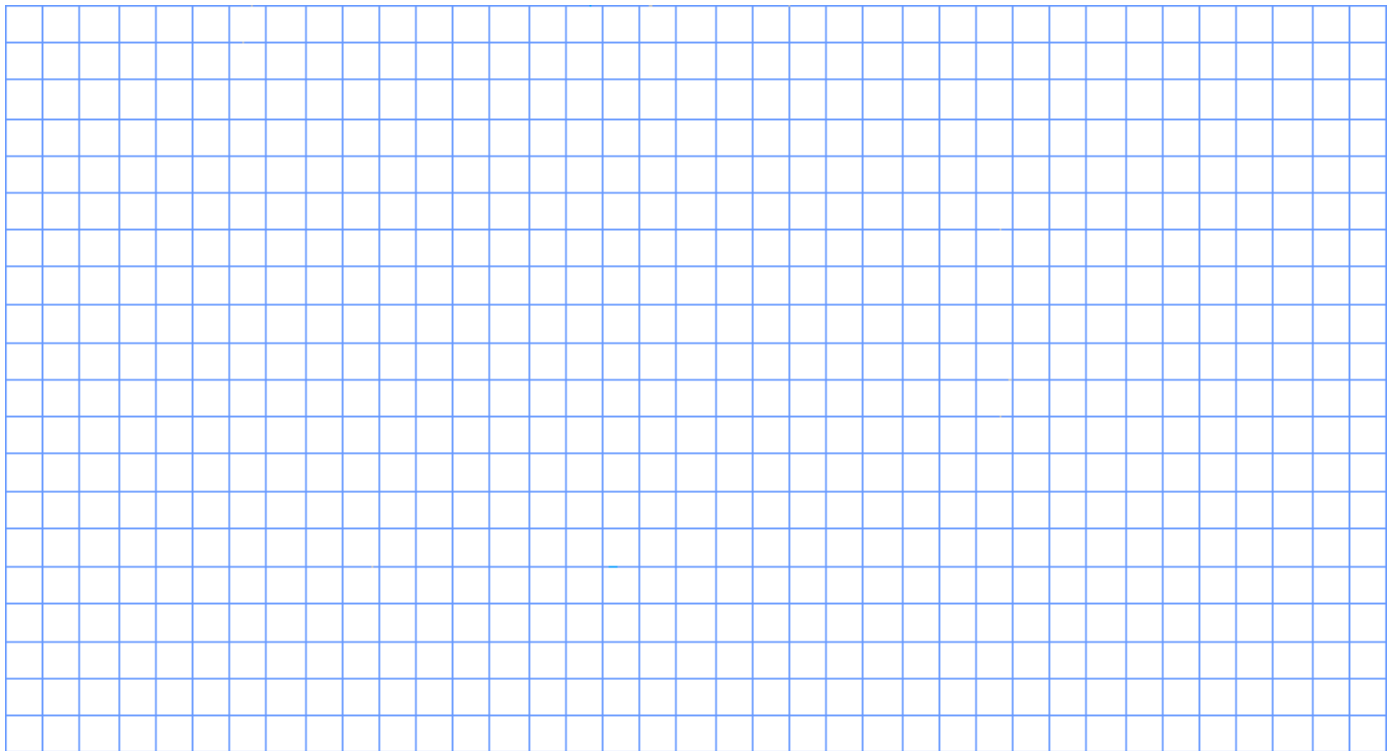# Drafting

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 four sheets of drawing paper (or two sheets of paper if you are completing requirement 3) with proper borders and title blocks for your projects.

a. Make a rough sketch of your project drawings to determine the correct size of paper to format.

b. Using single-stroke vertical or slant Gothic lettering, fill in all important information in the title block sections of the formatted paper. _____

Complete requirement 2 or 3 for your drawing projects.

2. Prepare two of the following pencil drawings for reproduction, using two of the formatted sheets of paper and being sure to fill in the title block information. _____

a. Architectural: Make a rough sketch of a room. From it, make a finished scale floor plan. Using conventional symbols, show all openings, equipment, lights, and safety devices. Use an architectural scale size. _____

b. Mechanical: Make a scale drawing of some piece of craft work or interesting object. Use the orthographic projection technique to show at least three views. Use dimension lines to show the actual size. _____

c. Electrical: Draw a simple schematic of a radio or electronic circuit. Properly print a bill of materials of the major electronic parts of the radio or circuit. Use standard drawing symbols for the electronic components. _____

3. Using a CAD (computer-aided drafting) system, prepare and plot one of the drawings in requirements 2a, 2b, or 2c. Create the format (border and title block) on the computer before starting the drawing._____

4. Using a formatted sheet of paper, prepare an isometric drawing of something not drawn in requirement 2 or 3. On the drawing, list which instruments you used. _____

5. Lettering: Using single-stroke vertical or slant Gothic lettering, describe in forty words or less why CAD is used in a particular industry (aerospace, electronics, architectural, or other). Use the 8+-by-11-inch formatted sheet._____

6. Describe the three most common methods of reproducing pencil drawings. _____

_____

_____

_____

Describe one method of reproducing a computer drawing.   Make copies of one of your drawings using one of these methods. ___

_____

_____

_____

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