



# Graphic Arts

## 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 #33216. Each Scout must do each requirement. Merit Badge Workbooks and more: [Online Resources](#). Send comments to the workbook developer: [craig@craiglincoln.com](mailto:craig@craiglincoln.com). Requirements revised: 01/1/10, Workbook updated: 02/10.

Scout's Name: \_\_\_\_\_ Unit: \_\_\_\_\_

Counselor's Name: \_\_\_\_\_ Counselor's Ph #: \_\_\_\_\_

### 1. Review with your counselor the processes for producing printed communications:

offset lithography, \_\_\_\_\_

screen printing, \_\_\_\_\_

electronic/digital, \_\_\_\_\_

relief, \_\_\_\_\_

and gravure. \_\_\_\_\_

Collect samples of three products, each one produced using a different printing process, or draw diagrams to help with your description. \_\_\_\_\_

### 2. Explain the difference between continuous-tone, \_\_\_\_\_

line, \_\_\_\_\_

and halftone artwork. \_\_\_\_\_

Describe how it can be created and/or stored in a computer. \_\_\_\_\_

### 3. Design a printed piece (flier, T-shirt, program, form, etc.) and produce it. \_\_\_\_\_

Explain your decisions for the typeface or typefaces you use \_\_\_\_\_

and the way you arrange the elements in your design. \_\_\_\_\_

Explain which printing process is best suited for printing your design. \_\_\_\_\_

If desktop publishing is available, identify what hardware and software would be appropriate for outputting your design.

4. Produce the design you created for requirement 3 using ONE of the following printing processes:

a. Offset lithography \_\_\_\_\_

Make a layout and produce a plate using a process approved by your counselor. Run the plate and print at least 50 copies.

b. Screen process printing \_\_\_\_\_

Make a hand-cut or photographic stencil and attach it to a screen that you have prepared. Mask the screen and print at least 20 copies.

c. Electronic/digital printing \_\_\_\_\_

Create a layout in electronic form, download it to the press or printer, and run 50 copies. If no electronic interface to the press or printer is available, you may print and scan a paper copy of the layout.

d. Relief printing \_\_\_\_\_

Prepare a layout or set the necessary type. Make a plate or lock up the form. Use this to print 50 copies.

5. Review the following postpress operations with your counselor:

a. Discuss the finishing operations of padding, \_\_\_\_\_

drilling, \_\_\_\_\_

cutting, \_\_\_\_\_

and trimming. \_\_\_\_\_

b. Collect, describe, or identify examples of the following types of binding:

perfect, \_\_\_\_\_

spiral, \_\_\_\_\_

plastic comb, \_\_\_\_\_

saddle stitched, \_\_\_\_\_

and case. \_\_\_\_\_

**6. Do ONE of the following, then describe the highlights of your visit:**

- a. Visit a newspaper printing plant: Follow a story from the editor to the press.
- b. Visit a retail, commercial, or in-plant printing facility: Follow a project from beginning to end.
- c. Visit a school's graphic arts program: Find out what courses are available and what the prerequisites are.
- d. Visit three Web sites (with your parent's permission) that belong to graphic arts professional organizations and/or printing-related companies (suppliers, manufacturers, printers): With permission of our parent or counselor, print out or download product or service information from two of the sites.

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**7. Find out about three career opportunities in graphic arts.** \_\_\_\_\_

Pick one \_\_\_\_\_

and find out the education, training, and experience required for this profession. \_\_\_\_\_

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

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

**Boy Scouts of America:** ► [scouting.org](http://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](http://usscouts.org) -or- [meritbadge.org](http://meritbadge.org)    **Merit Badge Books:** [www.scoutstuff.org](http://www.scoutstuff.org)

Graphic Comm Central: <http://www.TechEd.vt.edu/gcc>

My Design Primer Printing Topics: <http://www.mydesignprimer.com/printing/50000.html>

Print and Graphics Scholarship Foundation: <http://www.gain.net/employment/scholarships.html>

Vocational Information Center: <http://www.khake.com/page27.html>