



GRAPHIC ARTS

Merit Badge Requirements

- 1) Review with your counselor the processes for producing printed communications: offset lithography, screen process printing, electronic/digital, relief, and gravure. You may show samples and 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 hardware and software are 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 then 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:
Make 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 paddling, 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) Identify three career opportunities in graphic arts and tell how you can prepare for them.
- 7) Do ONE of the following, and 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 commercial or in-plant printing facility: Follow a job 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 on the Internet that belong to graphic arts professional organizations and/or printing-related companies (suppliers, manufacturers, printers): Download product or service information from two of the sites.

Requirement 1

Give the process for producing the following printed communications. You may show samples and draw diagrams to help with your description. If you use samples and drawings, attach them to this worksheet.

Offset Lithography: _____

Screen Process Printing: _____

Electronic/Digital: _____

Relief: _____

Gravure: _____

Requirement 2

Give a definition for each of the following:

Continuous-Tone Artwork: _____

Line Artwork: _____

Halftone Artwork: _____

Describe how these artwork types can be created and/or stored in a computer: _____

Requirement 3

Design a printed piece (T-shirt, program, form, etc.) and produce it. Give a brief description of your printed piece: _____

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 hardware and software are available, identify what hardware and software would be appropriate for outputting your design: _____

Requirement 4

For this requirement you are asked to produce the design you created for requirement 3 using one of the following printing processes. Select the process you will, or did, use. Complete the requirement listed for that process. And give a brief description of the process.

 Offset Lithography - Make a layout and then produce a plate using a process approved by your counselor. Run the plate and print at least 50 Copies.

Process Description: _____

 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.

Process Description: _____

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

Process Description: _____

Scout Name: _____ Unit #: _____ Date: _____

Relief Printing - Prepare a layout or set the necessary type. Make a plate or lock up the form. Use this to print 50 copies.
Process Description: _____

Requirement 5

Review the following postpress operations with your counselor. Write down what you discussed about each:

Discuss the finishing operations of paddling, drilling, cutting, and trimming. Give a brief summary of your discussion: _____

Collect, describe, or identify examples of the following types of binding: perfect spiral, plastic comb, saddle stitched, and case. Give a brief summary: _____

Requirement 6

Identify three career opportunities in graphic arts and tell how you can prepare for them.

Career: _____ How Would You Prepare For This? _____

Career: _____ How Would You Prepare For This? _____

Career: _____ How Would You Prepare For This? _____

Requirement 7

You have been given four options for this requirement. Select and complete one of them.

If you selected **Option A**:

Visit a newspaper printing plant: Follow a story from the editor to the press. Describe the highlights of your visit: _____

Scout Name: _____ Unit #: _____ Date: _____

If you selected **Option B**:

Visit a commercial or in-plant printing facility: Follow a job from beginning to end. Describe the highlights of your visit: _____

If you selected **Option C**:

Visit a school's graphic arts program: Find out what courses are available and what the prerequisites are. Describe your visit: _____

If you selected **Option D**:

Visit three Web sites on the Internet that belong to graphic arts professional organizations and/or printing-related companies (suppliers, manufacturers, printers): Download product or service information from two of the sites. Give a summary of the sites you visited and the information you downloaded: _____
