



# 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: \_\_\_\_\_

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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: \_\_\_\_\_

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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: \_\_\_\_\_

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