

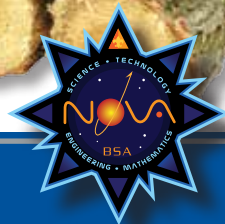
# MERIT BADGE SERIES



# PULP AND PAPER



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STEM-Based

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MERIT BADGE SERIES

# PULP AND PAPER



*"Enhancing our youths' competitive edge through merit badges"*



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# Requirements

1. Tell the history of papermaking. Describe the part paper products play in our society and economy.
2. Learn about the pulp and paper industry.
  - a. Describe the ways the industry plants, grows, and harvests trees.
  - b. Explain how the industry manages its forests so that the supply of trees keeps pace with the demand.
  - c. Tell how the industry has incorporated the concepts of sustainable forest management (SFM).
  - d. Describe two ways the papermaking industry has addressed pollution.
3. List the trees that are major sources of papermaking fibers.
  - a. Discuss what other uses are made of the trees and the forestland owned by the pulp and paper industry.
  - b. Describe two ways of getting fibers from wood, and explain the major differences between them.
  - c. Tell why some pulps are bleached, and describe the process.



4. Describe how paper is made. Discuss how paper is recycled. Make a sheet of paper by hand.
5. Explain what coated paper is and why it is coated. Describe the major uses for different kinds of coated papers. Describe one other way that paper is changed by chemical or mechanical means to make new uses possible.
6. Make a list of 15 pulp or paper products found in your home. Share examples of 10 such products with your counselor.
7. With your parent's and counselor's approval, do ONE of the following:
  - a. Visit a pulp mill. Describe how the mill converts wood to cellulose fibers.
  - b. Visit a paper mill and get a sample of the paper made there. Describe the processes used for making this paper. Tell how it will be used.
  - c. Visit a container plant or box plant. Describe how the plant's products are made.
  - d. Visit a recycled paper collection or sorting facility. Describe the operations there.
  - e. Using books, magazines, your local library, the Internet (with your parent's permission), and any other suitable research tool, find out how paper products are developed. Find out what role research and development play in the papermaking industry. Share what you learn with your counselor.
8. Find out about three career opportunities in the papermaking industry that interest you. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.



# Papermaking Resources

## Scouting Literature

*Chemistry, Energy, Engineering, Environmental Science, Fish and Wildlife Management, Forestry, Graphic Arts, Soil and Water Conservation, Sustainability,* and *Textile* merit badge pamphlets

Visit the Boy Scouts of America's official retail website at <http://www.scoutstuff.org> for a complete listing of all merit badge pamphlets and other helpful Scouting materials and supplies.

## Books

Asuncion, Josep. *The Complete Book of Papermaking*. Sterling, 2003.

Couzins-Scott, Elizabeth. *Papermaking: 25 Creative Handmade Projects Shown Step By Step*. Lorenz Books, 2014.

Dawson, Sophie. *The Art and Craft of Papermaking: Step-by-Step Instructions for Creating Distinctive Handmade Paper*. Sterling, 1997.

Draper, Allison Stark. *Choosing a Career in the Pulp and Paper Industry*. Rosen Publishing Group Inc., 2001.

Grummer, Arnold E. *Arnold Grummer's Complete Guide to Easy Papermaking*. Krause Publications, 1999.

Hiebert, Helen. *The Papermaker's Companion: The Ultimate Guide to Making and Using Handmade Paper*. Storey Books, 2000.

Rainey, Rhonda. *Papermaking for the First Time*. Sterling, 2005.

Reimer, Mary. *300 Papermaking Recipes*. Martingale and Company, 2006.

Saddington, Marianne. *Making Your Own Paper: An Introduction to Creative Paper-Making*. Storey Books, 1992.

Saltman, David. *Paper Basics: Forestry, Manufacture, Selection, Purchasing, Mathematics and Metrics, Recycling*. Krieger Publishing, 1991.

Toale, Bernard. *The Art of Papermaking*. Davis Publications, 1983.

Woods, Samuel G. *Recycled Paper: From Start to Finish*. Blackbirch Press, 2000.

## Organizations and Websites

### American Forest and Paper Association

1101 K St., NW, Suite 700

Washington, DC 20005

Telephone: 202-463-2700

Website: <http://www.afandpa.org>

### **Robert C. Williams Museum of Papermaking**

Renewable Bioproducts Institute  
Mail code 0620, Georgia Tech  
Atlanta, GA 30332-0620  
Website: <http://www.ipst.gatech.edu/amp/index.html>

### **Society of American Foresters**

5400 Grosvenor Lane  
Bethesda, MD 20814-2198  
Toll-free telephone: 866-897-8720  
Website: <http://www.safnet.org>

### **Society of Wood Science and Technology**

P.O. Box 6155  
Monona, WI 53716-6155  
Telephone: 608-577-1342  
Website: <http://www.swst.org/index.html>

### **Technical Association of the Pulp and Paper Industry**

Paper University  
Website: <http://www.tappi.org/paperu>

### **Wisconsin Paper Council**

5485 Grande Market Drive, Suite B  
Appleton, WI 54913  
Telephone: 920- 574-3752  
Website: <http://www.wipapercouncil.org>

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