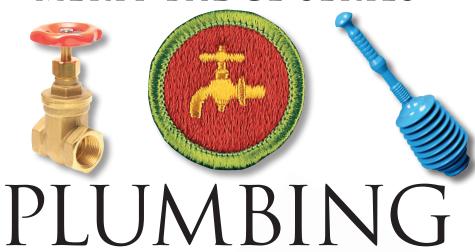
MERIT BADGE SERIES





BOY SCOUTS OF AMERICA MERIT BADGE SERIES

PLUMBING



"Enhancing our youths' competitive edge through merit badges"



Requirements

- 1. Do the following:
 - a. Describe how a properly working plumbing system protects your family's health and safety.
 - List five important local health regulations related to plumbing and tell how they protect health and safety.
 - c. Describe the safety precautions you must take when making home plumbing repairs.
- 2. Do the following:
 - Make a drawing and explain how a home hot- and cold-water supply system works. Tell how you would make it safe from freezing.
 - Make a drawing and explain the drainage system of the plumbing in a house. Show and explain the use of drains and vents.
- 3. Show how to use five important plumber's tools.
- 4. Identify and describe the use of each of the following: washer, retaining nut, plunger (rubber force cup), solder, flux, elbow, tee, nipple, coupling, plug, union, trap, drainpipe, and water meter.



- 5. Name the kinds of pipe that are used most often in a plumbing system. Explain why these pipes are used.
- 6. Cut, thread, and connect two pieces of metal pipe.
- 7. Under the supervision of a knowledgeable adult, solder three copper tube connections using a gas torch. Include one tee, two straight pieces, and one coupling.
- 8. Do the following:
 - a. Replace a washer in a faucet.
 - b. Clean out a sink or lavatory trap.

Plumbing Resources

Scouting Literature

Home Repairs and Public Health merit badge pamphlets

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

Books

Better Homes and Gardens editors. *Step-by-Step Plumbing*. Meredith Books, 1997.

Home Depot Books editors. *Plumbing* 1-2-3: *Install, Upgrade, Repair, and Maintain Your Home's Plumbing System.* Home Depot, 2005.

Popular Mechanics editors. *Complete Home How-To.* Hearst Books, 2009.

Organizations and Websites

American Society of Plumbing Engineers

Website: http://www.aspe.org

International Association of Plumbing and Mechanical Officials

Website: http://www.iapmo.org

Mechanical Contractors Association of America

Website: http://www.mcaa.org

Plumbing-Heating-Cooling Contractors Association

Website: http://www.phccweb.org

United Association Union of Plumbers, Fitters, Welders, and HVAC Service Techs

Website: http://www.ua.org

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Daniel Giles—page 46

John McDearmon—all illustrations