

# MERIT BADGE SERIES



# PLUMBING



BOY SCOUTS OF AMERICA®

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



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# Requirements

1. Do the following:
  - a. Describe how a properly working plumbing system protects your family's health and safety.
  - b. 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:
  - a. Make a drawing and explain how a home hot- and cold-water supply system works. Tell how you would make it safe from freezing.
  - b. 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 steel 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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## Photo and Illustration Credits

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