



Plumbing

Merit Badge Workbook

This workbook can help you but you still need to read the merit badge pamphlet (book). No one can add or subtract from the Boy Scout Requirements #33215. Merit Badge Workbooks and much more are below: [Online Resources](#).
Workbook developer: craig@craiglincoln.com. Requirements revised: 2005, Workbook updated: August 2008.

Scout's Name: _____ Unit: _____

Counselor's Name: _____ Counselor's Ph #: _____

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.

_____	_____
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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.

Online Resources (Use any Internet resource with caution and only with your parent's or guardian's permission.)

Boy Scouts of America: ▶ scouting.org ▶ [Guide to Safe Scouting](#) ▶ [Age-Appropriate Guidelines](#) ▶ [Safe Swim Defense](#)
▶ [Scout](#) ▶ [Tenderfoot](#) ▶ [Second Class](#) ▶ [First Class](#) ▶ [Rank Videos](#) ▶ [Safety Afloat](#)

Boy Scout Merit Badge Workbooks: [BSA Troop 780](#) -or- usscouts.org -or- meritbadge.org Merit Badge Books:
www.scoutstuff.org

[ExpertVillage First Aid Videos](#) ▶ [Make a First Aid Kit](#) ▶ [Basics](#) ▶ [Basics2](#) ▶ [CPR Basics](#) ▶ [Venomous Snake Bite](#)
▶ [Plumbing Repairs](#) ▶ [Leaky Faucet](#) ▶ [Garbage Disposal](#) ▶ [Toilet](#) ▶ [Replace a Sink](#) ▶ [Copper Tubing](#)

American Society of Plumbing Engineers: <http://www.aspe.org>

International Association of Plumbing and Mechanical Officials: <http://www.iapmo.org>

Mechanical Contractors Association of America: <http://www.mcaa.org>

Plumbing-Heating- Cooling Contractors: <http://www.phccweb.org>

United Association of Plumbers and Pipefitters: <http://www.ua.org>