



Plumbing Merit Badge Workbook

SCOUTMASTER BUCKY

Scouts participating in a Scoutmaster Bucky merit badge opportunity, whether online or in person, should consider using the Plumbing merit badge pamphlet for discovery and knowledge, along with the class preparation pages for clarifications, insights, and expectations.

<https://scoutmasterbucky.com/merit-badges/plumbing/plumbing-pamphlet.pdf>

<https://scoutmasterbucky.com/merit-badges/plumbing/plumbing-cpp.pdf>

REQUIREMENT 1a: Describe how a properly working plumbing system protects your family's health and safety.

Notes:

REQUIREMENT 1b: List five important local health regulations related to plumbing and tell how they protect health and safety.

HEALTH REGULATION #1:

Regulation:

How this regulation protects health and safety:



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HEALTH REGULATION #2:

Regulation:

How this regulation protects health and safety:

HEALTH REGULATION #3:

Regulation:

How this regulation protects health and safety:

HEALTH REGULATION #4:

Regulation:

How this regulation protects health and safety:



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HEALTH REGULATION #5:

Regulation:

How this regulation protects health and safety:

REQUIREMENT 1c: Describe the safety precautions you must take when making home plumbing repairs.

Notes:



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REQUIREMENT 2a: Make a drawing and explain how a home hot- and cold-water supply system works. Tell how you would make it safe from freezing.

Notes:

REQUIREMENT 2a: Tell how you would make this home hot- and cold-water supply system safe from freezing.

Notes:



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REQUIREMENT 2b: Make a drawing and explain the drainage system of the plumbing in a house.

Notes:

REQUIREMENT 2b: Show and explain the use of drains and vents in a home.

Notes:



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REQUIREMENT 3: Show how to use five important plumber's tools.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

Notes:

REQUIREMENT 4: Identify and explain the following terms: washer, retaining nut, plunger (rubber force cup), solder, flux, elbow, tee, nipple, coupling, plug, union, trap, drainpipe, and water meter.



Washer:



Retaining Nut:



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Plunger (rubber force cup):



Solder:



Flux:



Elbow:



Tee:





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Nipple:



Coupling:



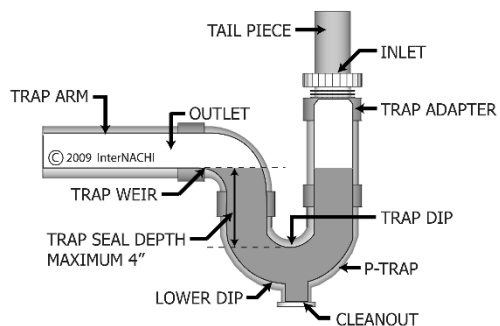
Plug:



Union:



Trap:





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Drainpipe:



Water Meter:

REQUIREMENT 5: Name the kinds of pipe that are used most often in a plumbing system. Explain why these pipes are used.

PIPE TYPE #1:

Type/Material:

Why this type is used:

PIPE TYPE #2:

Type/Material:

Why this type is used:



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PIPE TYPE #3:

Type/Material:

Why this type is used:

PIPE TYPE #4:

Type/Material:

Why this type is used:

PIPE TYPE #5:

Type/Material:

Why this type is used:

PIPE TYPE #6:

Type/Material:

Why this type is used:



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DO FOUR OF THE FOLLOWING (6A, 6B, 6C, 6D, 6E, 6F, or 6G) FOR REQUIREMENT 6

REQUIREMENT 6: Do FOUR of the following, each under the supervision of a knowledgeable adult:

REQUIREMENT 6a: Visit the plumbing section of a hardware store or home center and identify:

1. PVC pipe and fittings
2. CPVC pipe and fittings
3. PEX pipe and fittings
4. Copper pipe and fittings
5. Steel pipe and fittings
6. Specialty plumbing tools

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

REQUIREMENT 6b: Cut, clean (debur), PVC or CPVC pipe; solvent weld at least three connections to include a coupling, tee, and elbow.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

REQUIREMENT 6c: Cut PEX pipe; make at least one connection using either a quick-connect fitting or a crimp fitting (using specialized tools).

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

REQUIREMENT 6d: Solder a copper connection using a gas torch.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

REQUIREMENT 6e: Replace a kitchen or lavatory faucet.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

REQUIREMENT 6f: Remove, clean or replace, and reinstall a sink or lavatory drain trap.

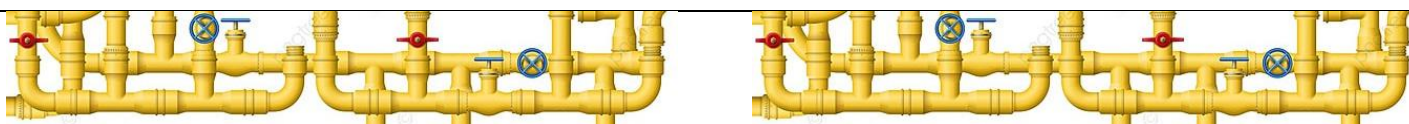
This requirement must be reviewed with your merit badge counselor.

BE PREPARED!

REQUIREMENT 6g: Properly apply pipe thread tape to a pipe or a plumbing connector.

This requirement must be reviewed with your merit badge counselor.

BE PREPARED!





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REQUIREMENT 7: Identify three career opportunities that would use skills and knowledge in plumbing.

Career Opportunity #1:

Career Opportunity #2:

Career Opportunity #3:

REQUIREMENT 7: Pick one and research the training, education, certification requirements, experience, and expenses associated with entering the field.

Selected Career Opportunity:

Education Requirements:

Training Requirements:

Certification Requirements:

Experience Requirements:



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Expense Requirements:

REQUIREMENT 7: Research the prospects for employment, starting salary, advancement opportunities and career goals associated with this career. Discuss what you learned with your counselor.

Prospects for Employment:

Starting Salary:

Advancement Opportunities:

Career Goals:

REQUIREMENT 7: Discuss whether you might be interested in this selected career.

Notes: