

# PIPES AND FITTINGS



1. Explain the uses of each of the following types of pipe:

PVC \_\_\_\_\_  
\_\_\_\_\_

CPVC \_\_\_\_\_  
\_\_\_\_\_

PEX \_\_\_\_\_  
\_\_\_\_\_

Cast iron \_\_\_\_\_  
\_\_\_\_\_

Clay tile \_\_\_\_\_  
\_\_\_\_\_

Galvanized \_\_\_\_\_  
\_\_\_\_\_

Black iron \_\_\_\_\_  
\_\_\_\_\_

**DATE COMPLETED:** \_\_\_\_\_ **PASSED BY:** \_\_\_\_\_

2. Define the following terms:

Pipe schedule \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Working pressure \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Burst pressure \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Temperature range \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sealant \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PVC \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**DATE COMPLETED:** \_\_\_\_\_ **PASSED BY:** \_\_\_\_\_

3. Explain how a pipe is connected to a fitting through the following methods:

Solder \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Flare \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Compression \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Clamp \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Barbed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Threaded \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Glue and primer \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**DATE COMPLETED:**

**PASSED BY:**

4. Match the fitting term with the correct fitting illustration.

a. Elbow

b. Street elbow

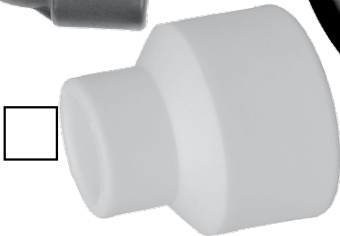
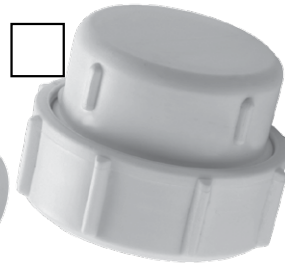
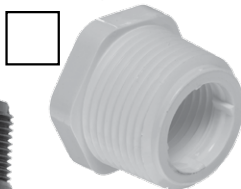
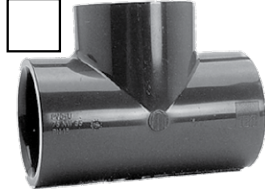
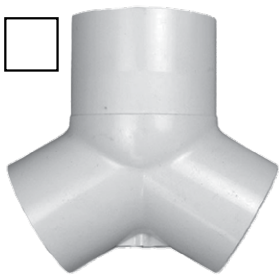
c. Cap

d. Tee

e. Wye

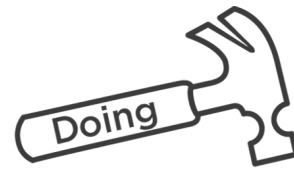
f. Coupling

g. Bushing



**DATE COMPLETED:**

**PASSED BY:**



Complete one of the following two options:

- Build three pipe projects out of plastic tubing and fittings. Suggestions include:
  - Marshmallow blow gun
  - Pop bottle rocket launcher
  - Ladder-ball apparatus game
  - Floor hockey goals
  - Water cannon
  - A separate project approved by your counselor

PROJECT LOG		
Project	Date	Passed by
#1 _____	_____	_____
#2 _____	_____	_____
#3 _____	_____	_____

- Build one project out of plastic and a second project out of a type of metal. If the second project requires soldering, brazing, or welding, conduct these operations under the supervision of an adult who is experienced in the craft.

PROJECT LOG		
Project	Date	Passed by
#1 _____	_____	_____
#2 _____	_____	_____

**BADGE APPROVED BY:** \_\_\_\_\_

**BADGE COMPLETED ON:** \_\_\_\_\_