



THE VIRGINIA  
ADULT LEARNING  
RESOURCE CENTER

Virginia Commonwealth University

**Plumbing**  
**Lesson Two: A Plumber's Tools**

**Student Handouts**

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## A Plumber's Tools: Tool Families

|          |   |   |  |   |
|----------|---|---|--|---|
| PLIERS   |    |    |    |    |
| WRENCHES |    |    |    |    |
| PLUNGERS |   |   |   |   |
| SAWS     |  |  |  |  |
| HAMMERS  |  |  |  |  |

# A Plumber's Tools: Tool Families

|               |   |   |   |  |
|---------------|---|---|---|--|
| PIPE CUTTERS  |  |                   |                    |                   |
| TAPE MEASURES |  |  <p>SERIES 61</p> |  <p>SERIES 46</p> |  <p>SERIES 19</p> |

## Activity #2

# How Many Tools Do You Need?



| NUMBER    | NUMBER WORD OR EXPRESSION | NOUN                                    | HOW IT WORKS   |
|-----------|---------------------------|---|--|
| 1         | a                         | hammer                                  | We use <b>“a”</b> in front of a singular (one) noun.   |
| 1         | an                        | auger<br>electric drill                 | We use <b>“an”</b> in front of nouns that begin with a <b>vowel sound</b> .                        |
| 1         | a pair of                 | work gloves<br>pliers<br>safety glasses | This is <b>one</b> object with two parts. We add <b>“s”</b> or <b>“es”</b> at the end of the word. |
| 2 or 3    | a few<br>some             | plungers                                | We add <b>“s”</b> or <b>“es”</b> to plural nouns.  |
| 3 or more | several<br>a set of       | pipe cutters<br>drill bits<br>wrenches  | We add <b>“s”</b> or <b>“es”</b> to plural nouns.  |

### Let's Practice

Write the correct form of each word. First, look at the example.

Example: Give me **several** wrenches.

wrench

1. Please hand me **a set of** \_\_\_\_\_.

screwdriver

2. I need **a few** \_\_\_\_\_.

bolt

3. We need **a 6ft** \_\_\_\_\_ to clear this drain.

snake

4. I have **a pair of** \_\_\_\_\_ if you need them.

glasses

5. Can you give me **some** \_\_\_\_\_, please?

saw

### Activity #3

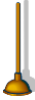


## Miguel's Toolbox





Miguel is going to fix a problem with the bathroom sink at his friend's house. Before he leaves, he needs to pack his toolbox. Miguel tells his daughter, Elena, which tools he needs. Elena is putting the tools in his toolbox.

Read Miguel and Elena's conversation and write the correct words on the lines after each picture.

**Elena:** What tools do you need, dad?

**Miguel:** I need  a  \_\_\_\_\_, and  \_\_\_\_\_ of safety glasses.

**Elena:** What else do you need?





**Miguel:** I need  \_\_\_\_\_ and  a \_\_\_\_\_.

**Elena:** Which wrench do you want?

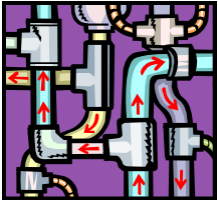
**Miguel:** Put in \_\_\_\_\_ adjustable wrench and  \_\_\_\_\_ locking wrench.

You can also throw in  a set of socket \_\_\_\_\_.

**Elena:** Anything else?

**Miguel:** Let's see. I will need  \_\_\_\_\_,  \_\_\_\_\_ tape,  \_\_\_\_\_ electric drill and  \_\_\_\_\_ of drill bits.

**Elena:** Okay, Dad. I hope that's all. Your toolbox is full.



### Activity #3: Plumbing Puzzle

## Handout A



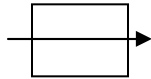
|    |    |   |    |   |    |   |    |  |   |    |    |   |   |    |  |  |    |  |    |
|----|----|---|----|---|----|---|----|--|---|----|----|---|---|----|--|--|----|--|----|
|    | 1  | w | a  | s | h  | e | r  |  |   |    |    | 3 |   |    |  |  |    |  |    |
| 4  |    |   |    |   |    |   |    |  | 6 |    |    |   |   |    |  |  |    |  |    |
|    |    | 5 | s  |   |    |   |    |  | 7 |    | 8  |   | 9 |    |  |  |    |  | 10 |
|    |    | a |    |   |    |   |    |  |   |    |    |   |   |    |  |  |    |  |    |
| 11 |    | w |    |   |    |   |    |  |   |    |    |   |   |    |  |  |    |  |    |
|    |    |   |    |   |    |   | 12 |  |   | 13 |    |   |   | 14 |  |  |    |  |    |
|    |    |   | 17 |   |    |   |    |  |   |    |    |   |   |    |  |  |    |  |    |
| 15 | 16 |   |    |   | 18 |   |    |  |   |    |    |   |   | 19 |  |  |    |  |    |
|    |    |   |    |   |    |   |    |  |   |    | 22 |   |   |    |  |  |    |  |    |
| 20 |    |   |    |   |    |   | 21 |  |   |    |    |   |   |    |  |  |    |  |    |
|    |    |   |    |   |    |   |    |  |   |    |    |   |   |    |  |  | 23 |  |    |

### Activity #3: Plumbing Puzzle

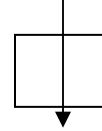
## Handout A



Words that you write **ACROSS**



**DOWN**



1. You use this appliance to wash your clothes.
3. The water in your sink goes down the \_\_\_\_\_.
5. A long tool that goes down a pipe to clean it.
7. A word that means "to put in a new appliance."

11. \_\_\_\_\_ water pressure means very little water.

13. Plumbers use this tool to hold or turn pipes.

15. You use this tool to turn screws.

19. You need a \_\_\_\_\_ measure to find out the length of a pipe.



20. \_\_\_\_\_ pliers hold screws and bolts tightly.

21. A \_\_\_\_\_ toilet has moving water all the time.

23. A bath \_\_\_\_\_ is very heavy.

2. A hot water \_\_\_\_\_ heats the water in a building.

4. Two commodes is the same as two \_\_\_\_\_.

5. You cut pipes with a hack \_\_\_\_\_.

6. a



8. a



9. Another word for a plumber's snake is an \_\_\_\_\_.

10. This man is using a \_\_\_\_\_.



12.



14. You can \_\_\_\_\_ pipe with a pipe cutter.

16. When water does not go down a drain, the drain has a \_\_\_\_\_.

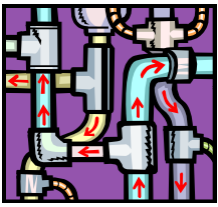
17. This pipe has a \_\_\_\_\_.



18. a



22. A plumber can \_\_\_\_\_ a pipe with a crack in it.



### Activity #3: Plumbing Puzzle

## Handout B



|   |   |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
|---|---|--|--|--|----|---|--|----|----|---|---|--|---|----|--|---|--|
|   |   |  |  |  |    |   |  |    |    |   | 3 |  |   |    |  |   |  |
|   | 1 |  |  |  |    |   |  |    |    |   | p |  |   |    |  |   |  |
|   | d |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
|   |   |  |  |  | 2  |   |  |    |    |   |   |  |   |    |  | 6 |  |
|   |   |  |  |  | t  |   |  |    |    |   |   |  |   |    |  | c |  |
|   |   |  |  |  |    |   |  |    | 5  |   |   |  |   |    |  |   |  |
|   |   |  |  |  |    |   |  |    | p  |   |   |  |   |    |  |   |  |
|   | 4 |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
|   | p |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
|   |   |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
|   |   |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
| 7 |   |  |  |  |    |   |  | 10 |    |   |   |  | 8 |    |  |   |  |
| a |   |  |  |  |    |   |  | b  |    |   |   |  | s |    |  |   |  |
|   |   |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
|   |   |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
| 9 |   |  |  |  |    |   |  |    | 11 |   |   |  |   | 12 |  |   |  |
| l |   |  |  |  |    | n |  |    | u  |   |   |  |   | g  |  |   |  |
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|   |   |  |  |  |    |   |  |    |    |   |   |  |   |    |  |   |  |
|   |   |  |  |  | 13 |   |  |    |    |   |   |  |   |    |  |   |  |
|   |   |  |  |  | h  |   |  |    |    |   |   |  |   |    |  |   |  |
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|   |   |  |  |  | 14 |   |  |    |    |   |   |  |   |    |  |   |  |
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### Activity #3: Plumbing Puzzle

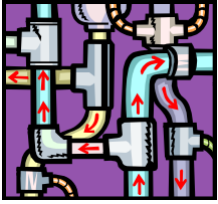
## Handout B



#### DOWN

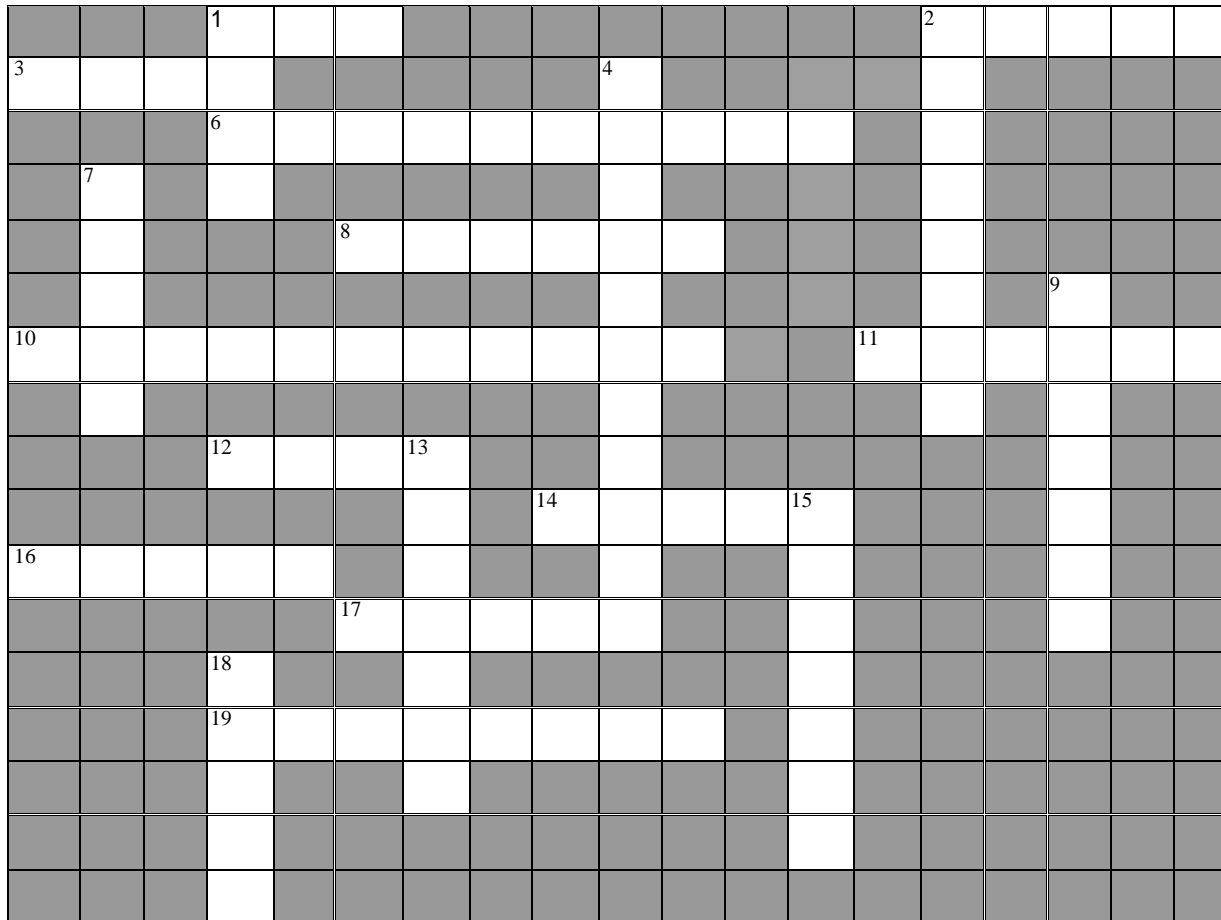
#### ACROSS

- |  |  |
|--|--|
| <p>1. A faucet will _____ when it is not working correctly.</p> <p>2. If a pipe is loose, you need to _____ it.</p> <p>3. You can use _____ to grip a bolt, nut, or screw.</p> <p>5. This pipe doesn't fit. It's too long. Do you have a _____?</p> <p>6. Another word for a <i>break</i> in a pipe is a _____.</p> <p>9. When water runs down or sprays from a pipe, the pipe has a _____.</p> <p>10. If your pipes freeze when it is very cold, they can _____.</p> <p>12. Another word for <i>grab</i> or <i>hold</i> is _____.</p> | <p>4. We use this to force a blocked drain or pipe to open.</p> <p>5. If your shower sprays just a little water, the problem could be low water _____.</p> <p>7. The type of wrench that fits different sizes of nuts, bolts or fittings with flat sides.</p> <p>8. A plumber puts a _____ down a pipe to clean out a block.</p> <p>9. To remove a nut or bolt, you _____ it.</p> <p>11. Another word for <i>unblock</i> is _____.</p> <p>13. To cut pipes, you can use a _____ saw.</p> <p>14. To learn the length of a pipe, you use a tape _____.</p> |
|--|--|



### Activity #3: Plumbing Puzzle

## Handout C



#### ACROSS

#### DOWN

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. When very little water comes out of a fixture, the water pressure might be_____.</li> <li>2. The place where waste water goes is a_____.</li> <li>3. A_____wrench is used to grip or turn pipes.</li> <li>6. The type of wrench that fits many sizes of nuts and bolts with flat sides.</li> <li>8. The fixture on a sink where the water flows from.</li> <li>10. This tool tightens and loosens screws.</li> <li>11. Another word for fix is_____.</li> <li>12. Another word that means "to hold something tightly."</li> <li>14. Another word for snake is_____.</li> <li>16. The place where two pipes meet is the_____.</li> <li>17. Plumbers put this down drains or pipes to remove clogs.</li> <li>19. To put the parts of something together is to_____.</li> </ol> | <ol style="list-style-type: none"> <li>1. Water coming out of a pipe or joint is a_____.</li> <li>2. This is an appliance that chops up food waste into very small pieces</li> <li>4. This is used to find out the length of a pipe.</li> <li>7. Another word for a clog is a_____.</li> <li>9. This is used to cut pipes.</li> <li>13. This is used over drains to force clogs through the pipes.</li> <li>15. This is a problem with a toilet. Water continues to flow from the tank to the bowl.</li> <li>18. You turn this to close and open a drain or pipe.</li> </ol> |
|--|--|

## Essential Tools for Plumbing Checklist

### Handout A



|     | TOOLS  | USE  |
|-----|--|--|
| 1.  | a set of screwdrivers,<br>Phillips and flat-bladed | to assemble fixtures,<br>turn screws                             |
| 2.  | a p__pe w__e__ch                                   | to grip or turn pipes or fittings                                |
| 3.  | a h__c__ saw                                       | to cut pipes   |
| 4.  | a ____nak__  | to clean out a blocked pipe                                      |
| 5.  | t__p__ m__as__r__                                  | to find out the length of a pipe                                 |
| 6.  | a pipe __u__t__r                                   | to cut pipes   |
| 7.  | a p__u__g__r                                       | to remove a clog from a drain                                    |
| 8.  | an a__just__b__le wrench                           | to tighten or loosen screws,<br>bolts, and pipes with flat sides |
| 9.  | lo__k__n__ pli__rs                                 | to grip or hold screws, bolts,<br>or fittings                    |
| 10. | rib-jo__n__ __l__er__                              | to grip or turn pipes, nuts and<br>fittings                      |

## Essential Tools for Plumbing Checklist

### Handout B



| TOOLS   | USE  |
|---|--|
| 1. a set of screwdrivers,<br>Phillips and flat-bladed | to assemble fixtures, turn screws                                |
| 2. a pipe _____ch                                     | to grip or turn pipes or fittings                                |
| 3. a _____ saw  | to cut pipes   |
| 4. a snake  | to clean out a blocked pipe                                      |
| 5. t_____ m_____                                      | to find out the length of a pipe                                 |
| 6. a pipe cutter                                      | to _____   |
| 7. a plunger  | to remove a clog from a d_____                                   |
| 8. an _____ wrench                                    | to tighten or loosen screws, bolts,<br>and pipes with flat sides |
| 9. locking pliers                                     | to grip or hold s____s, b____s<br>or fittings                    |
| 10. rib-_____   | to grip or turn pipes, nuts and<br>fittings                      |

## Essential Tools for Plumbing Checklist

### Handout C



|     | TOOLS   | USE  |
|-----|---|--|
| 1.  | a set of screwdrivers<br>Phillips and flat-bladed | to assemble fixtures, turn screws                              |
| 2.  | a _____ w _____                                   | to grip or turn pipes or fittings                              |
| 3.  | a hack _____                                      | to _____ pipes   |
| 4.  | a snake   | to clean out a bl _____ ed pipe                                |
| 5.  | a t _____ _____                                   | to find out the length of a pipe                               |
| 6.  | a _____ _____                                     | to cut pipes   |
| 7.  | a p _____ r                                       | to remove a _____ from a drain                                 |
| 8.  | a _____ a _____ wrench                            | to tighten or l _____ nuts, bolts and fittings with flat sides |
| 9.  | l _____ p _____                                   | to grip or hold screws, bolts or fittings                      |
| 10. | r _____ -j _____ p _____                          | to _____ or turn pipes, nuts or fittings                       |