



Pathfinder's Name

Chemistry

1. Define the following terms:

Elements _____

Compounds _____

Chemical symbols _____

Solutions _____

Atoms _____

Molecules _____

Periodic table _____

Combustion _____

Acid _____

Salt _____

Proton _____

Neutron _____

Electron _____

Distillation _____

Fractional distillation _____

Filtration _____

2. What gases extinguish life, and how?

Explain the principle of one kind of chemical fire extinguisher.

3. Name two common sources of carbon monoxide.

1. _____ 2. _____

Why is it dangerous?

4. What are the states of matter?

5. Do five of the following, and explain the chemical action that takes place:

a. Try to light a sugar cube, first without and then with some ash applied to the cube, thus showing the action of a catalyst.

Chemical action: _____

- b.** Place an ice cube in a glass of water, place a four-inch (10.2 cm) string on top of the glass and ice, then solve the problem of taking the ice cube out of the water without touching it.

Chemical action: _____

- c.** With the use of water, turpentine, and soap, transfer a newspaper picture to a blank sheet of paper.

Chemical action: _____

- d.** With the use of a candle and a piece of cardboard, demonstrate visually the three parts of a candle flame.

Chemical action: _____

- e.** With a bowl of water, wooden match sticks, a lump of sugar, and small amount soap, demonstrate the action of sugar and soap on the floating match sticks.

Chemical action: _____

- f.** Place a fresh egg in fresh water and then salt water, noting the difference.

Chemical action: _____

- g.** Demonstrate that rust uses up oxygen with the use of steel wool, a pencil, a rubber band, a water glass, and a dish of water.

Chemical action: _____

- h.** Demonstrate the colors produced when the following are burned: salt, copper, sulfate, and boric acid.

Chemical action: _____

- i.** Make an invisible ink.

Chemical action: _____

- j.** Show that washing soda or sodium carbonate contains water.

Chemical action: _____
