glassware does not always look hot. If your clothing catches fire, WALK to the emergency lab shower and use it to put out the fire.

Never put broken glass or ceramics in a regular waste container. Broken glass and ceramics should be disposed of in a separate container designated by your teacher.

SETTING UP THE EQUIPMENT

1. The general setup for heating a sample in a crucible is shown in Figure A. Attach a metal ring clamp to a ring stand, and lay a clay triangle on the ring.

CLEANING THE CRUCIBLE

2. Wash and dry a metal or ceramic crucible and lid. Cover the crucible with its lid, and use a balance to obtain its mass. If the balance is located far from your working station, use crucible tongs to place the crucible and lid on a piece of wire gauze. Carry the crucible to the balance, using the wire gauze as a tray.

HEATING THE CRUCIBLE TO OBTAIN A CONSTANT MASS

3. After recording the mass of the crucible and lid, suspend the crucible over a Bunsen burner by placing it on the clay triangle, as shown in Figure B. Then, place the lid on the crucible so that the entire contents are covered.

4. Light the Bunsen burner. Heat the crucible for 5 min with a gentle flame, and then adjust the burner to produce a strong flame. Heat for 5 min more. Shut off the gas to the burner. Allow the crucible and lid to cool. Using crucible tongs, carry the crucible and lid to the balance, as shown in Figure C. Measure and record the mass. If the mass differs from the mass before heating, repeat the process until mass data from heating trials are within 1% of each other. This measurement assumes that the crucible has a constant mass. The crucible is now ready to be used in a gravimetric analysis procedure. Details will be found in the following experiments.

FIGURE A

FIGURE B

FIGURE C

Gravimetric methods are used in Experiment 7 to synthesize magnesium oxide and in Experiment 9 to separate $SrCO_3$ from a solution.