

exact amount (e.g., "weigh out exactly 5.00 grams of NaCl"), you should not waste time trying to obtain an exact amount. However, always record the amount actually taken to the precision of the balance used.

5. For accurate mass determinations, the object to be weighed must be at room temperature. When a hot or warm object is placed on the pan of the balance, such an object causes the air around it to become heated. Warm air rises, and the motion of such warm air may be detected by the balance, giving mass determinations that are significantly less than the true value.
6. For many types of balances, there are likely to be small errors in the absolute masses of objects determined with the balance, particularly if the balance has not been properly calibrated or has been abused. For this reason, most mass determinations in the laboratory should be performed by a difference method: an empty container is weighed on the balance, and then the reagent or object whose mass is to be determined is added to the container. The resulting difference in mass is the mass of the reagent or object. Because of possible calibration errors, the same balance should be used throughout a procedure.

**Safety
Precautions**

- Protective eyewear approved by your institution must be worn at all time while you are in the laboratory.

Apparatus/Reagents Required

Unknown mass samples provided by the instructor, rubber stoppers, small beakers