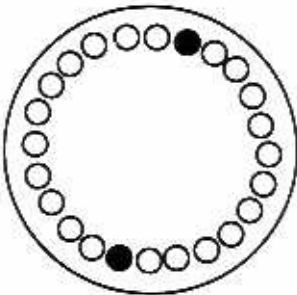


Using the Microcentrifuge

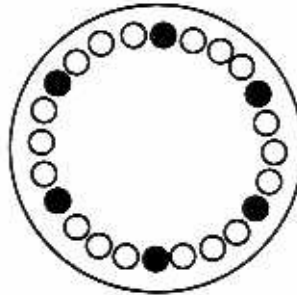
Centrifuges whirl tubes around in a circular motion. They use the centripetal force created by this motion to separate molecules of different density or weight, to mix fluids thoroughly, or to pull drops of fluid on the sides of tubes down to the bottom.

1. **Tightly** close the lid/caps on all the tubes to be placed in the microfuge.
2. The rotor of the centrifuge **must always be balanced**. You cannot, for example, insert ONE tube into the microfuge. Spinning in an unbalanced arrangement like this will damage the motor. It is easy to tell if the samples are not balanced: the microfuge make a lot of noise if unbalanced, but is quiet if it is balanced.
3. The amount of liquid in the tubes should be similar, otherwise the rotor will spin unevenly (like wet laundry spinning out of balance in a washing machine). You can always prepare a “blank” tube with the appropriate amount of water to balance a single tube.

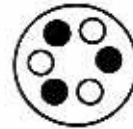
Samples of balanced rotor configurations:



2 tubes in a 24-place rotor



6 tubes in a 24-place rotor



3 tubes in a 6-place rotor

4. To start the microfuge, simply close the lid and the rotor will start spinning. If you are using the microfuge to mix liquids, or to pool liquids in the bottom of a tube, a few seconds of spinning is enough. Otherwise, time the spin according to your lab directions.
5. The holes in the microfuge are designed to hold 1.5 ml eppendorf tubes. In some labs you will be using 0.2ml PCR tubes. These tubes are too small for the regular holes, but there are **white inserts** that can be used to hold the smaller tubes. The balancing instructions remain the same with the insets as without. Please remember to return the inserts when you are finished with them. Do not leave them in the microfuge.