

## Pipetting exercise / The CSI experience



<http://img181.imageshack.us/img181/7152/csi202841296ws.jpg>

The ability to safely and accurately transfer the necessary volumes of liquid from one container to another is one of the most important skills used in the biology laboratory. This exercise will familiarize you with the equipment used for this purpose, and give you the skills to use these tools in future experiments. Work in pairs to accomplish the exercise below.

### Materials

B stock fluid  
R stock fluid  
Y stock fluid  
Micro pipettors  
15 ml conical tube  
micro centrifuge tubes (9)

### Protocol

1. Label 3 micro centrifuge tubes: "V Stock", "G Stock" and "O Stock".
2. Label remaining 6 micro centrifuge tubes: B, V, R, O, G and Y.
3. Familiarize yourself with the tips a couple times (note volume settings (note range), piston at different settings  
**second stop – expel all tip volumes of water from and couple times.**
4. Using P1000, pipette 1 ml of H<sub>2</sub>O from 15 ml conical into each of 6 B, V, R, G, O and Y micro centrifuge tubes. Each student pipettes 1ml into 3 tubes.



Micropipettor

micropipettors: set and eject different sizes), change note different play of thumb  
**(first stop – set volume; contents);** gently pipette set expel into 15ml conical tube a

5. Using P10 and P100 (with tip!), pipette 10 $\mu$ l of “B Stock” and 100 $\mu$ l of “R Stock” solutions into “V Stock” micro centrifuge tube (remember to change tips!); cap and mix gently.
6. Using P100 (with tip!), pipette 20 $\mu$ l of “R Stock” and 100 $\mu$ l of “Y Stock” solutions into “O Stock” micro centrifuge tube; cap and mix gently (remember to change tips!).
7. Using P100 (with tip!), pipette 20 $\mu$ l of “B Stock” and 100 $\mu$ l of “Y Stock” solutions into “G Stock” micro centrifuge tube (remember to change tips!); cap and mix gently.
8. Using P100 (with tips!) pipette 100 $\mu$ l each of B Stock, R Stock, Y Stock, G Stock, V Stock and O Stock solutions into B, R, Y, G, V, and O tubes, respectively (remember to change tips!). Cap and mix gently.

Results?