Microscope Skills Lab 1

Part 1: The ‘Field of View’ (FOV) of a microscope under low power (LP), medium power (MP) and high power (HP)

1. LP = 10x X 4x = ________x  
   MP = 10x X 10x = ________x  
   HP = 10x X 40x = ________x

2. Color of LP objective = ______  
   Color of MP objective = ______  
   Color of HP objective = ______

3. 1 meter = 100 cm = 1000 mm = 1,000,000 micrometers (um)  
   1 mm = 1000 micrometers
   1 mm = _________________ micrometers.  The symbol for micrometers is _________________

4. Use the paper ruler to determine the size of the FOV under LP. Approximate size of LP ________ mm = ________ um

5. Use the paper ruler to determine the size of the FOV under MP. Approximate size of MP ________ mm = ________ um

6. Use the paper ruler to determine the size of the FOV under HP. Approximate size of HP ________ mm = ________ um

Part 2: The Letter “E”

7. Select a letter “e” from a newspaper clipping or from the laser printed handouts and draw the letter as you see it under low power. The LP magnification for this my microscope is _______________.

8. Pull the slide towards your body. In what direction does your “e” appear to move when you do this?
   ______________________________________
   ______________________________________
   ______________________________________
   ______________________________________
   ______________________________________

9. Only after you have focused your “e” under low power, put the medium power objective lens in place and bring the “e” into focus. Remember: use ONLY the fine focus knob with the medium & high power objective!!! Otherwise, you will ruin the lens and your specimen. Draw the letter “e” as you see it under high power. The MP magnification for this my microscope is _______________.
Part 3: Cells and Tissues
10. Select one of the preserved cells or tissues from the lab bench, make a quick sketch and then identify the cell name and the type of tissue it can be found in.

Lens Power: 

Name of Cell: 

Name of tissue where you might find this cell: 

Name of system where you might find this tissue: 

Lens Power: 

Name of Cell: 

Name of tissue where you might find this cell: 

Name of system where you might find this tissue: 

Lens Power: 

Name of Cell: 

Name of tissue where you might find this cell: 

Name of system where you might find this tissue: 