Begin by going to this website: **http://www.udel.edu/biology/ketcham/microscope/scope.html**

\_\_\_\_\_1. Make sure your volume is on then click “Start Tour” at the bottom right of the “Getting Started” box.

\_\_\_\_\_2. When it asks you to select a slide begin with the green specimen- Onion Root Tip, this is the easiest to see (2nd from top).

\_\_\_\_\_3. Click the “Switch Objectives” tutorial under the Getting Started box. ***LISTEN!***

***CHECKPOINT: Which lens does the tutorial tell you to start with? \_\_\_\_\_\_\_x***

\_\_\_\_\_4. Follow the tutorial prompts to learn how to center the slide and focus your specimen. ***HINT!!! Use the checklist box on the left side of the screen to monitor your progress!***

***CHECKPOINT: Describe how the coarse and fine focus differ:***

***CHECKPOINT: What are you supposed to do with the coarse focus?***

\_\_\_\_\_5. Once your specimen is in focus using the 4X lens, use the revolving nosepiece at the bottom left of your screen to move the 10X lens into place. Use the fine focus to adjust.

***CHECKPOINT:***

***What happens if you try to use the coarse adjustment when the 10X lens is in place?***

***CHECKPOINT: What happens to your image if you try to magnify it using 40x or 100x?***

\_\_\_\_\_6. Draw the Onion Root Tip using 10x magnification in the appropriate circle on the back of this paper.

\_\_\_\_\_7. Follow the same procedure for the bacterial capsules and cheek cells slides. Draw the images using the total magnification shown under the circle.

Specimen: Onion Root Tips

100 x Magnification

Specimen: Bacterial Capsule

1000x Magnification

Specimen: Cheek Cells

400x Magnification

***A quick review:***

1. What objective lens you should have in place to begin to look at your specimen? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. True or False : You only use the course focus knob when you have the 4X scanning objective in place.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Assuming the light is on and the oculars are in place what are the next 2 steps?

4. If you need more light to view your specimen then you need to adjust the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**CHALLENGE! Click “Try This” to test your microscope skills! Do P1 through P6 to test your microscope skills!**