

Learning the Microscope Lab

Name _____
Date _____
Period _____

Section One – Identifying the Parts of the Microscope

With your partner, point to and name all the parts of the microscope. If you miss one of the parts, start over and name them again. Continue this until you can name all the parts without missing one.

Section Two – Rules of Using a Microscope

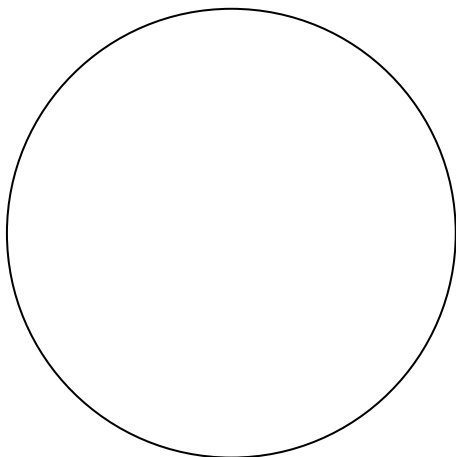
1. Keep the microscope away from the edge of the table.
2. Make sure the power cord is away from you and in a place that it cannot be tripped over or get hung up in your feet.
3. Always carry your microscope with two hands. One on the arm and one on the base.
4. Drop the stage all the way to the bottom and change to the scanning objective when putting your specimen/slide on the stage.
5. Use the Coarse Adjustment knob only when using the Scanning Objective.
6. Make sure your specimen is in focus before changing from scanning power to the low power objective.
7. Use only the Fine Adjustment Knob when focusing with the Low and High Powered Objective.
8. Always move your eyes to the microscope, not the microscope to your eyes.

Section Three – Viewing the Metric Ruler

1. Make sure the stage is down and your microscope is on the scanning power objective.
2. Place a metric ruler on the stage of the microscope. Be sure to put the ruler under the stage clips.
3. Align the MM lines of the ruler with the center of the stage so that the light is shining up through them.
4. Look through the eyepiece and continue aligning the MM lines so that they are in the center of your field-of-view.
5. Turn the coarse adjustment knob until the MM lines are clear and in focus.
6. Observe and then sketch below the MM ruler using each objective.

Millimeters on a Metric Ruler

What is this a drawing of?

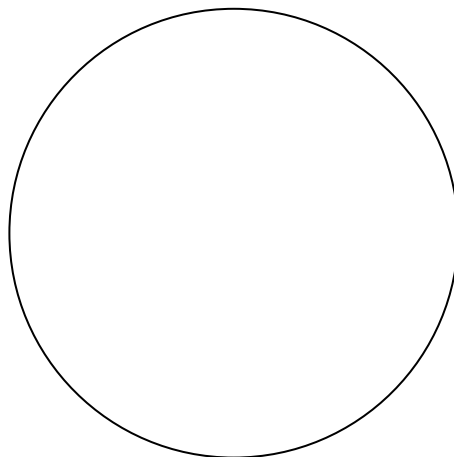


40X

Magnification

Millimeters on a Metric Ruler

What is this a drawing of?

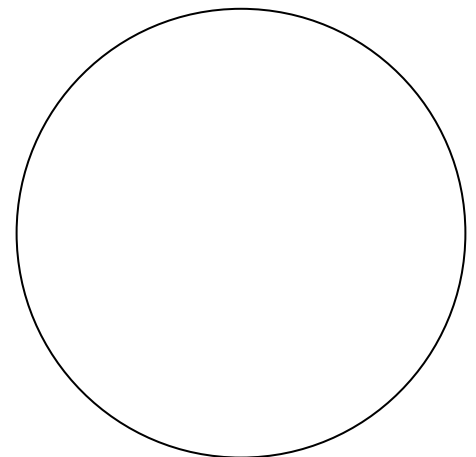


100X

Magnification

Millimeters on a Metric Ruler

What is this a drawing of?



400X

Magnification

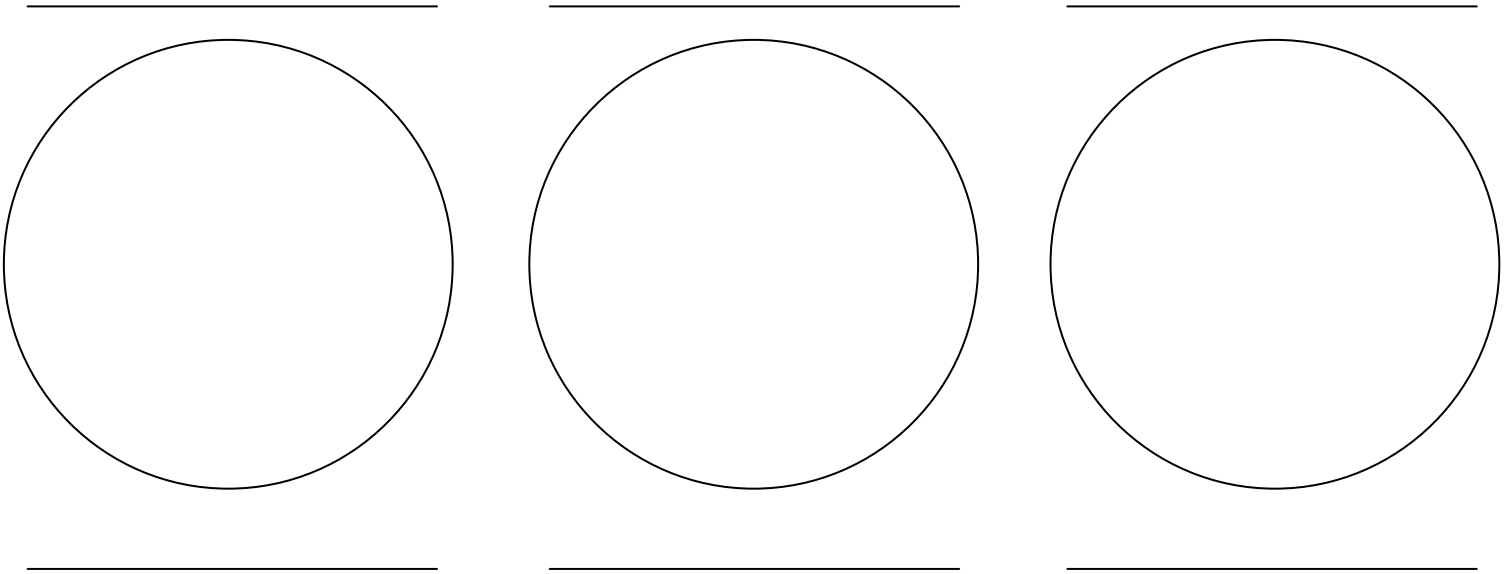
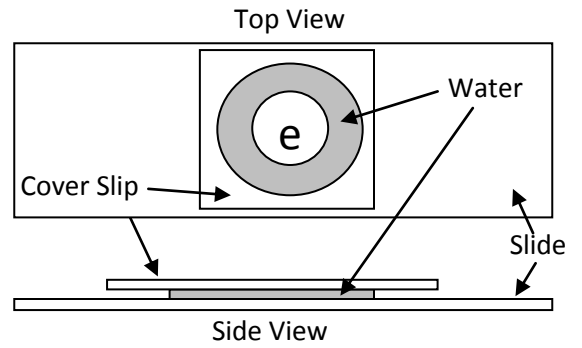
How many MM marks can you see on Scanning Power? _____ Low Power? _____ High Power? _____

When viewing under High Power, how large is your field-of-view? _____

One MM is equal to 1000 micrometers. Estimate your field-of-view in micrometers on high power? _____

Section Four – The Letter “e”

1. Using the whole punch, punch out one letter “e”
2. Place the letter “e” in the middle of your slide
3. Place a small drop of water on top of the “e”
4. Put the small cover slip on top of the water
5. Make sure the stage is down and you are using the scanning power objective
6. Place the prepared slide on your microscope



Section Five – Color Pictures

1. Using the whole punch, punch a section of the color picture
2. Place the letter color hole punch in the middle of your slide
3. Place a small drop of water on top
4. Put the small cover slip on top of the water
5. Make sure the stage is down and you are using the scanning power objective
6. Place the prepared slide on your microscope

Each drawing should include:

- 1. What are you looking at?**
- 2. Under what magnification are you viewing the object?**
(10 X objective = ??)

